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16-25,  
31-33,  
44-45

Issue 145 • 17th August 1991 • 88p

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expo is closed to the public – page 4**

## FRAUD: bosses blamed

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The Philips PCL203. Are  
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## 3-D Calc



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# COMPUTER EXPRESS

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## Powerful portability

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• The memory of the Philips' notebook can be expanded to 8 Mb

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• The Hyperface 3865X - doubles processing speeds



• Nebulus 2, does it come up with the laughs?

## Games Week

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## Could you be a winner?

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## SHOPPING EXPRESS

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• Jake and Elroy have always got into trouble in the past, and now they can do so on your computer with *The Blues Brothers* from Titus

## It's a beautiful game Bob!

Rock (if) you drop in *The Blues Brothers*, the computer game.

In the game you have to set up the perfect conditions for the Blues Brothers' concert. The only thing is, you have to get Jake and Elroy there.

The Blues Brothers game features five scrolling levels of chaos and confusion in each varied surroundings as department stores, prison cells and sewers.

The music was one of the highlights of the movie, and the game too features a computerised rendition of the original Blues Brothers soundtrack.

Other features include over 200 different screens of graphics and multi-directional scrolling.

The game which is as yet unpriced will be out for the ST, Amiga and PC later this year. ■

## Advent of the slim drive



• Could a floppy drive be any thinner than this? The new, svelte MF35SE from Mitsubishi is designed for notebook and laptop PCs

Computers look set to become even smaller thanks to a new Mitsubishi-designed floppy drive which is barely larger than the disks you put in it.

The MF35SE is a 1.44Mb 3.5-inch drive designed for use with notebook and laptop PCs. It is just

14.8mm high, which is less than the diameter of a 5p coin, but contains all the bits and bobs of a standard 3.5-inch floppy computer (drive) and weighs 105g.

Not yet commercially available, the MF35SE will, according to the company, cost no more than a standard 3.5-inch disk drive. ■

## Printer price slashed

NEC has reduced the price of its 24-pin wide carriage P10 printer by £100 to £599.

The P10 can print over 136 columns, and up to A3 paper size. Speeds range from 100 character per second (cps) for better quality to 300 cps for draft quality.

The printer comes with 10 resident fonts and Windows 3.0 driver software.

If you want to get hold of one of this amazingly low price, contact NEC on 081-993 9111. ■

## Bargains for the ST

Frontier Software has reduced the price of most of its Atari ST-related products, some by up to 45 per cent.

These include the Xtra-RAM ST and Xtra-RAM STX memory upgrades and the Forget-Me-Clock II clock cartridge.

The two different RAM cards are for the ST and STX series of machines, respectively, and can be installed by the user in about an hour. Some upgrading may be needed for owners of newer STs, however.

The unpopulated Xtra-RAM ST card has been reduced from £34.99 to £29.95, while the 0.5Mb version is now £39.99 instead of £49.99. The 2Mb

version is now reduced from £39.99 to £29.99.

Forget-Me-Clock II is a cartridge that plugs into an ST or STX and automatically sets the system and keyboard clocks up to the computer's internal clock. Usually both clocks have to be set manually.

The cartridge also has a pass-through port so that other cartridges can be plugged in. On top of it, other similar cartridges like up the port completely, the company claims.

The Forget-Me-Clock II is now priced at £24.95 instead of £25.95.

For further information, call Frontier Software on 0423 567143 or 0423 508577. ■

## Europe's biggest computer-related expo runs

# DOORS SHUT

News broke late last week concerning the forthcoming European Computer Entertainment Show (ECCS) which was to be held at Earl's Court 2 between 6 and 8 September.

The show, which last year attracted thousands of members of the public, and was heralded as a major success, is this year to be a trade only event.

### CHANGE OF PLAN

The previous plan was to have two halls at the venue. One was to be trade only, while the doors of the other were to be opened to members of the general public.

Exhibitors expected to attend included Commodore, Atari, Virgin Games, Cossack, US Gold, Demtek and Virgin Interactive (soon to become Sega Europe) amongst many others both great and small. However, it now appears that the consumer side of the venture has now been abandoned.

We attempted to contact a representative of EMAP exhibitors in order to discover exactly why the public side of the show was to be ditched. But at the time of going to press we had still not received any response.

### MIXED RECEPTION

The reaction from the computer industry, however, has been mixed with some companies welcoming a trade only exhibition, others feel saddened by the situation.



• Stay away from the European Computer Entertainment Show in September, at Earl's Court 2. Unlike last year's show when it was open to the public, this year's exhibition is strictly for trade only

The organisers are attempting to warn members of the public away from the show with the aid of radio advertising in the London area. However, it is still expected that many members of the public will show up as the pre-booked tickets were available. ■

## Trading places

Traders, from Lintel is a trading game which involves the usual buying and selling of commodities in order to make a profit. While doing this you can play other sub-games, including playing roulette and betting robots.

Four players always play the game, whether they are computer controlled or, with the addition of a four player joystick interface, human.

Games players like being puzzled it seems, and Lintel is counting on this for its release of 700, its new puzzle game.

While a metal ball rolls around a track, you have to move the flaps at the ball crosses the finishing line within the time limit. Numerous obstacles get in the way of the ball's



• Live the life of Gordon Gekko by wheezing and dealing on Traders

progress, including bear mugs and paddles that slow it down.

Both games are available now for the Amiga, ST and PC. For more information, call Lintel on 019-4752-3268. ■

### EXPRESS...

Mauricio Hamlin, the MD of Lancashire-based software house, Hamlin International was arrested at his home in Chorley on 30 July and charged with drug-trafficking offences relating to £3 million worth of cocaine.

### ...SNIPPET



• End of level guardians appear in *Carallax*, which is new on the shoot-'em-up front

## Fast scroller

Adding its name to the streams of shoot-'em-up betting to get into your disk drive is Electronic Zoo's *Carallax*.

It claims to be the fastest scrolling game to date (don't they all?) and features five different levels, different weapons, a special two player mode and huge end of level guardians, as shown above.

*Carallax* will be released on 30 September for the Amiga, ST and PC, priced at £25.99. ■

into trouble as show goes trade only

## ON PUBLIC

## WHAT THE EXHIBITORS THINK ...

News of the change in aspect of the European Computer Entertainment Show came as a shock to many companies who were to participate.

We spoke to a number of major companies to assess their reaction.

Andrew Wright at Virgin Games: "I'm really quite upset on behalf of the industry. We didn't want to take two stands, one in the trade area and one for the public, and I think that this was a common attitude. So, at the moment everything is on 48-hour hold awaiting a decision as to whether we will attend".

Andrew Charasinski of US Gold: "We are very saddened by the

decision. It doesn't change our stance. We wanted a trade only show but at this late stage we will have to consider our position. We will be showing our wares at the Gloucester hotel rather than Earls Court".

Peter Walker of Atari: "We are disappointed that the show is not to go ahead. It actually makes us look towards the Computer Shopper show. We think it's important to have a show for the consumer, so this decision saddens us. But the timing of the show is critical. September is too far away from Christmas for it to be effective".

Kelly Sumner of Commodore: "It is very unfortunate that some of our associates and competitors

don't want to show their support for a show which the industry needs. We've even started building our stand. We're a little bit aggrieved".

Care Edgely of Domark: "We were only going to the trade side anyway. Although putting together a big stand with loads of arcade games would be nice for the public, it really won't stay with them long enough for the impact to carry over to Christmas".

Nick Alexander of Virgin Mastertronic (soon to be Sega Europe): "A consumer show is largely an irrelevance to us. We have not been too sad about the situation. The consumer show is a bit of an anachronism".



\* Son of Zeus features over 40 different fantasy monsters, each with its own sound effect, and the gods comment on the action with sampled speech which guides you on your way

## This will grab you!

Hercules, hero of the Son of Zeus, has to free the gods trapped by the evil Kronos on Mount Olympus. He must find 12 pieces of the special stone that holds the key to the god's power, giving them the strength to destroy Kronos.

As Hercules, you view the land of Greece in first-person perspective, and will be able to battle the monsters that will be encountered with a variety of weapons and different physical manoeuvres.

Son of Zeus will be available from Electronic Zoo on 30 October for the ST and Amiga.

Electronic Zoo will also release The Magic Garden, a cute arcade adventure, on 30 September, while Under Pressure, a scrolling arcade action game, will be available on 30 November. ■



• PC Format will be launched on 26 September

## Get ready for PC Format

If you've got a PC compatible or are interested in finding out what they are capable of then you should check out Future Publishing's new magazine PC Format, the modern guide to personal future computing, which hits the newsstands on 26 September.

PC Format is aimed at all aspects of leisure and entertainment computing for the PC, including

graphics, music, games, shareware and much more.

Every issue comes over mounted with either a single 3.5-inch disk or two 5.25-inch disks packed with 700K of game demos and shareware utilities.

The 3.5-inch version costs £2.95 and the 5.25-inch £3.25.

In the first issue of PC Format you will find out everything you need to know about soundcards and why

you should want one, and you'll be able to get to grips with playable demos of AMG 23, Super Forum and Speedball 2.

You'll also find our very own PC columnist, Paul Rigby, offering the benefits of his considerable experience.

The launch issue is out on 26 September and subsequent issues will be in all good newsagents on the fourth Thursday of every month. ■

## The great escape?

Two new versions of the Mass Breakout come along for the PCs are to be launched.

PC Communications is releasing Mass Breakout 2 and Mass Breakout Network. The former includes simultaneous linking of one IBM PS/2 compatible PC with up to four host mainframes or PCs via modem.

Using an on-line windowing system, the user can display all four conferences at the same time, or can 'hotkey' between the four.

The program also runs in the background and can be invoked when required. Included in the package is the 2-Modem file transfer protocol, and a fully implemented VT220 terminal emulation.

Mass Breakout Network is, as its name suggests, a LAN (Local Area Network)-based system. Its aim is to do away with the need for shared modems on LANs. Price for the package is on an on-right basis.

Mass Breakout 2 will cost you £250. For more information call PC Communications on 0633 851111. ■

## Supermouse

Logitech has developed a mouse especially for working with three dimensional graphics that can also be used as input voice commands.

The mouse works by receiving ultrasonic signals from a small triangular unit plugged into the computer. This means that you can pick up the mouse as well as moving it around on the flat plane of a table top. It will be ideal for Computer Aided Design.

It also has press-to-spec facilities for entering vocal commands.

The 3-D mouse will sell for around \$1,000, which Logitech reckons is less than a third of similar devices.

Production models should be available early in 1992. ■

## Empire blitz

Empire is blitzing with five new games: Death Ringer is a 3D-level scrolling beat-'em-up which features over 800 graphic screens and 35 levels of 'perfect parallax' - the game has parallax effects on every raster line. Karn, the hero of the game, is animated in 64 frames.

In Volled, the convergence of the 'Talis' cycle, you have to battle through 16 levels of aliens taking your losses and reinforcements, while dodging their formidable fire power.

Space 180 is the computer version of the role playing game. As well as exploring planets, players can also look around a number of cities on Earth, including London and New York. In their travels players will encounter over 500 different characters which can be either traded with or fought, depending on what's appropriate.

Eye of the Storm is set on Jupiter. It features award 3-D graphics with light source illumination



\* Amiga owners can soon become Khan the Barbarian and battle the evil wizards in Death Ringer

and Gossard's wheeling, to make objects appear smoother. There are a number of missions to complete, against the hostile interstellar invaders, mechanoids and other rogue characters.

Twilight 2000 is set in the aftermath of World War II. You and your squadron have to deal with the political and territorial problems created by the war, by setting up alliances and military blocs. ■

## EXPRESS...

Sixty three per cent of Tottenham Hotspur's shareholders have accepted the 75p a share offer from Terry Venables and Arsenal chairman Alan Sugar.

...SNIPET

## NIBBLES

## Royal approval

Berkshire-based Software Products International has been honoured by King Juan Carlos of Spain at a ceremony at the Palace of the Zarzuela in Madrid. The honour was in recognition of SPI's position as the leading business software company in Spain.

Managing director John Browne presented the King with a copy of the company's multi-function software Open Access which was voted "Product of the Year" by a leading Spanish PC magazine. Apparently, Juan Carlos immediately filed in his registration form!

## Look, no leads!

Relay/279 VTAM 4.7 is an enhanced software-only package from ComWare International which enables PC users to use VTAM-based mainframe applications without resorting to leads, emulation boards or other hardware. It provides full-screen emulation of IBM 3271, 3270 and 3278 model SA mainframe terminals.

Prices are \$6,750 for the VM VTAM version and \$10,215 for the MVS VTAM version.

## NeXT Text

Apple has announced the launch of its Illustrator colour illustration software for the NeXT computer. It includes features only available on the NeXT version – a preview function and the facility to use colour or greyscale TIFF images as templates for auto-laying. It costs £250.

Apple has also released TeachType for the NeXT. This is a CTR text manipulation program which can perform such tasks as precise kerning, scaling, rotation and case conversion. You can contact them on 0795 831831.

## New fonts

Four new Adobe Type Set packages designed specifically for business users will be available from 1 September. Each set contains 1 to 18 Adobe type 1 fonts, Adobe Type Manager and a 32 page guide on how to make the most of your fonts. Available for Apple Macintosh computers and running Microsoft Windows, the Adobe Type Set For Business packages will cost between £88 and £148.

## Tense, nervous headache?

Brain machines are devices for relieving stress and inducing a state of tranquility by subjecting the user to all-encompassing audio-visual experiences.

At £49.99, the Intensive PH2 is a new low-cost brain machine offering facilities usually only found on machines costing around £900, according to UK distributor the London Neuro-Centre. It features 25 pre-set programs, but you can also devise up to 13 of your own customised light and sound shows.

Contact The London Neuro-Centre, 33 Camden Lock, London NW1 8AF. ■



• Not something to while away the time under the sun lamp, but a hi-tech solution to stress.

## Rugged cuts from GRiD

GRiD Systems, renowned for producing rugged hard-wearing computers, is cutting prices across its range by up to 30 per cent.

The reductions affect the company's laptop, notebook and desktop computers, hard drives, RAM kits, CPUs, coprocessors and monitors.

The GRiD 1450 laptop with 40Mb hard drive, for example, is down by \$1,200 to \$3,995 while the 1720 Notebook with 20Mb hard drive has been reduced from \$3,495 to \$2,895. RAM kits are all down by 25 per cent.

For further details contact GRiD on 081-987 8955. ■

## Established software boss warns small games publishers:

# "MERGE OR FACE FINANCIAL RUIN"

Autogistic's Managing Director Peter Colver has warned other small publishing companies that they must look for mergers if last financial collapse within the next year.

This follows rumours in the computer industry that Autogistic, the company responsible for such games as *Exile* and *Dashen Gooch's World Class Cricket*, is running into financial trouble.

Colver, whose company has advertised in the trade press calling for merger or consortium proposals, reckons small companies cannot survive the current impoverished state of the games industry.

"The problem is that there are too many small companies releasing too many mediocre products," Colver told *Express*. "It comes down to who's marketing the products best as opposed to who's making

the best products."

"He believes that mergers will allow companies like Autogistic to concentrate on producing the games, allowing someone else to handle the marketing. He also believes that a consortium of small companies with one shared marketing division is a possible answer."

"I think that many other companies which have been around for a while will be thinking along the same lines," said Colver.

The Autogistic move mirrors that of Hewson, now 21st Century Entertainment, which advertised in a national Sunday newspaper for partners in a joint venture. It was shortly after this advert that Hewson ceased trading. Autogistic is hoping to avoid the same fate if its proposed plans come to fruition. ■



• Autogistic believes it needs to merge if it is to carry on producing games like *Graham Gooch's World Class Cricket*

## All you need is love (and bananas)

Top Banana is an environmentally aware Archimedes game from new publishing house, Hix.

It features sprites sampled from television and video – the company believes this is the first time this technique has been used. Also included is three-way parallel scrolling, real time sampled music and customisation facilities to enable players to create their own sub-games by altering sprites. There's even a two 1-shot throw-in.

The game itself is an ecologically-averse outing. You are armed with just one powerful weapon, love. With this you have to save the world from the consequences of pollution.

You have to neutralise acid rain, stop floods and liberate the forests of that which have been stocked up by the evil corporations. There are four "worlds" to be saved.

The Hix crew is site working on a new game which makes use of artificial intelligence and neural networking. According to



• In *Top Banana* you can save the world with your powerful weapon – love!

Robert Peppard of the company, "it will change the way that people design games."

The price for *Top Banana* is £25.99. It will be released later this month, and both ST and Amiga versions are also in the planning stages. ■

## SHOOT FROM THE LIP

"We still fundamentally believe that a consumer show is needed."

Neil Wood, EMAP's exhibitions director talking about plans for the CES, just days before the announcement was made that it would be a trade only show.

"So soon after the liberation of many countries throughout Eastern Europe, there is one type of European citizen who is far from free – he is your joystick."

Spectravideo press release for the company's new wire-free infrared joystick, the Freedom Stick.

"The Gravis speaks a word and the word is quality...it sticks to the table top like electrons to the nucleus of an inert element."

Yet another Spectravideo press release for a joystick which does not, in fact, talk, and neither does it cause a nuclear reaction if you pull it off your table top. What are these people on? ■

Word from Tokyo - new Mac portable for under \$2,000

# SONY TO BUILD MAC NOTEBOOK

Apple Computer has once again become embroiled in a confusing situation regarding new launches.

Sony is to manufacture Apple's forthcoming Macintosh notebook, according to Japan's leading financial newspaper the Nikkei.

## WHAT AGREEMENT?

It appears that a Sony spokesman confirmed that the huge Japanese electronics company will be manufacturing the notebook in the very near future. Apple has denied that any such deal has been struck.

The Nikkei report claims that the notebook will weigh between four and seven pounds and will cost around \$1,850. Sony will produce the machine as an OEM (original equipment manufacturer) and it will be sold solely under the Apple brand name. The machine is expected to go into production before the end of this year.



• Confusion reigns over the Mac notebook - has Sony got a deal to manufacture it or not?

Sony already has close links with Apple, providing various parts for the American company, including floppy disk drives.

Sony also has the necessary production facilities to manufacture small computers, so adapting to produce the new Macintosh notebook would be a fairly simple step.

Yes to manufacturer small computers, so adapting to produce the new Macintosh notebook would be a fairly simple step.

At the moment the Outbound notebook, a portable which can be used as a standalone device and can then 'dock' with desktop Macs, is the only such machine to be recognised by Apple.

## REALLY CRUCIAL

The Sony statement, which has still not been confirmed as coming from an official, follows another embarrassment for Apple, as one of its own executives has been reported as saying that IBM was crucial to the future of Apple.

In reply to a question posed about the relationship between the two companies, and specifically what would happen if the recent joint venture was to fail, Ian Dary, Apple's Pacific vice president said: 'I wouldn't like to think'.



• Do your accounts in 3-D with the new version of Maple which has many new functions and full colour 3-D graphics

## Simple algebra

Design engineers can be saved the drudgery of having to work out loads of complicated algebraic calculations thanks to the latest upgrade of Maple from Waterloo Maple Software.

Version 5.0 features many new functions, including full colour 3-D graphics and a new, easier-to-use graphical user interface (GUI).

According to the company you can now make the program perform any of over 2,000 general purpose and specialised mathematical functions using simple commands in a fully interactive environment.

Maple is PC compatible. Prices vary according to platform, with the 386 version costing £517.

## Visual imagery

Golden Image has launched a revamped version of its hand scanner for the Atari ST and Amiga.

The Golden Image MARK II hand scanner comes with upgraded versions of Touch-Up, the accompanying software. The Amiga version now features a 'MASK' tool and a new scanning utility which enables you to see the scanner while you are still in another program.

Touch-Up for the Atari now includes a 'colours as grey' feature. Grey scales are better than dithered greys, which use combinations of black dots to produce the impression of grey, as they do not distort in desktop publishing programs.

The MARK II Hand Scanners are available directly from Golden Image next month. Software upgrades for existing users are £15, while new users will have to pay in the region of £155. Telephone: 081-385 1102, int.

## New dimension to role playing

Siegemaster offers fantasy role-playing enthusiasts the chance to pit their wits against goblins, trolls, elves and other assorted baddies all in glorious 3-D isometric graphics.

The game, from Vulture Publishing, involves you leading a party of up to 10 warriors to complete 100 tasks and ultimately overthrow your enemies' evil lord. This includes laying siege to 12 castles.

Siegemaster will be available for the ST and Amiga at £25.99 from late September. ■



• Animated 3-D graphics come to fantasy role-playing in Siegemaster

## AST considers Emerald Isle

AST Research is set to announce details of a new European plant to supply the company's PCs to the whole of Europe.

At the moment Ireland looks the likeliest location as it has, 'excellent facilities as well as a good supply of experienced staff,' says William Hsu, the company's marketing manager.

AST Research already has manufacturing facilities in California, Hong Kong and Taiwan and its latest news demonstrates its determination to establish a sound user base in Europe. ■

## Relive those golden moments...

With the increasing popularity of such videos as 25 Years of Match of the Day and 101 Greatest Goals, it was inevitable that someone would soon come up with a computer version.

Golden Goals is to be a series of Public Domain disks containing the best, most exciting and funniest goals scored on Kick Off 2. The brainchild of Derek Doran, Golden Goals will rely on Kick Off players seeking in their favourite goals for possible inclusion in the disks. Doran intends to have the first disks available by mid-October.

Doran has big plans for the future of the series, including celebrity Golden Goals. Should any Public Domain libraries would like to stock the disks, or if you want to send in some of your own favourite goals, you should contact Derek Doran at 3 Clarendon Park, Chapelrod, Dublin 20, Eire. ■



• Kick Off players send off your favourite goals and they may be included in Golden Goals

## Pulling faces

Metashift has developed a computer system that could win first prize in a punting contest.

The PC-based face pulling system produces 3-D graphics of the human face which can be manipulated in a wide variety of ways. For example, it could age the face of a baby to that of a 70-year-old man, or predict the appearance of an unborn child by merging the faces of its parents.

More serious uses would be producing identikit pictures for the police or in pathology.

The current system is a prototype, but Metashift reckons that the final model will be relatively low cost as it is based on an ordinary PC. ■

## EXPRESS...

Next Computers has announced an 88 per cent increase in profits for the second quarter of 1991.

...SNIPPET



\* Virtual Reality doesn't have to be all space suits and gourmets...

## Comfy VR

Astrella is not famous for the development of virtual reality, however, one man is seeking to change this.

David Nibbe has come up with a "new form of VR". Nibbe plans to do away with the heavy suits and goggles normally associated with Cyberspace. His idea is to use transponders attached to the body, relaying signals to and from a central processor.

According to Nibbe, this is a "more comfortable" way of achieving a computer-based Nirvana. Also, using transponders which do not have to cope with the translation of movement from body, via cloth, to the processor, eases the work of the main computer.

Transponders also cut down on cabling which, in the form of fibre optics, can interfere with movement and lead to a less than totally virtual experience.

To market this new idea Nibbe has set up a company called Alternative Computer Systems (ACS) and hopes to take on the rest of the world, showing that the antipode is as much on the cutting edge as the Orient and Occident. ■

# TOMORROW'S CUTTING EDGE

What's the next step in the evolution of computing? Find out here, right now, on this page...

## Faster chip off the block

A chip with 10 times the processing power of most commercially available processors is being developed in Northern Ireland.

The digital signal processing (DSP) chip is capable of performing 250 calculations per second and comes courtesy of the Industrial Development Board of Northern Ireland.

Scientists at the IDB are claiming that this new technology enables them to produce circuits which can achieve up to 130 million operations per second.

Uses for the chip, which is a complementary metal oxide semiconductor (CMOS) 16-bit Impulse Response (IR) filter include applications in high definition television, aerospace and radar amongst others.

In ability to make use of digital rather than analogue techniques for filtering apparently make it more capable of handling high frequencies than standard processors.

The basis of the chip's fantastic ability rests on a new technique for recursive calculations. This is a system whereby the result of one calculation is required to continue with the next.

Scientists in Belfast made a leap of imagination which led them to the conclusion that the whole result of a calculation was not required for this, interim results could be passed on and used in subsequent additions, multiplications and subtractions. The partial results are manipulated using the redundant number system.

The Belfast crew have been equally as fast off the mark as their new invention. The scientists have already formed a company, called Integrated Silicon Systems Ltd, and it will be marketing the chips as soon as the first set is off the production line and out of the factory. ■

## E-by mail Like, yeah dude!

A system called Directory Synchronisation (iSync) has been developed in the United States which enables E-mail users on Encapsiplex networks to communicate directly with individuals rather than anonymous nodes.

When changes are made to local directories they are automatically logged and sent to the linked systems thus allowing a more direct and immediate communication over local systems. ■

Computers and the gentle science of aesthetics are not normally associated terms, after all a grey box is a grey box is a grey box, isn't it? However, a magazine called Verbum seeks to change this view.

Subtitled *The Journal of Personal Computer Aesthetics*, the mag comes in the form of a CD-ROM and is packed with animated images, interactive multimedia and even interactive features.

In order to access the wonder-

ous delights of the magazine you will need the following:

- A healthy bank account - the first ten CD magazines will cost you \$50 plus post and packaging from the United States.
- A Macintosh SE30 or upwards with 5MB RAM.
- An 8-bit colour monitor.
- And, of course, a CD-ROM drive.

For more information, or to place an order, write to Verbum, PO Box 12564, San Diego, California, USA. ■



\* Would you like your TV to set the video itself, record the programs you wanted and also edit out the adverts?

## TV Times?

One of IBM's many vice presidents has looked into the future and has seen "personalised television".

Michael Blazin would like to see intelligent computers which can monitor and relay information from a personally selected menu to the user.

One vision is for smart TVs and videos which occur the world's answers for programs which are of interest to the user. The systems will be able to record, and possibly in the future even edit such broadcasts. Once the data has been collected, ideally it should be presented in the form of interactive multimedia. ■

## Smart money

The Soviet Union is to have its first ever automatic cash dispenser.

The Soviet money machine will be more advanced than their western counterparts because they will make use of smart cards.

These cards can hold details of banking transactions, and other data in RAM. They will also hold details of the user's fingerprints. The initial shipment is of 2,000 cards. ■

## We are the holograms

Time Traveller is a new game which aims to take arcade into the 21st Century. Big deal? You say, that's what they claimed for Dragon's Lair and Space Ace.

Well you would be wrong. Time Traveller actually uses a different technology to achieve its effects. It makes use of holograms.

Developed by Sega of Japan, the game is already breaking sales records but is let down by the difficulty of its gameplay. Instead of using the conventional arcade game architecture of upright box or sit-down glass table, the game is mounted in a white fibre-glass box which stands ill about waist height. The player looks down into the system, and manipulates the game by use of three controls which are stationed at the top of the box. The player sees a black aperture into which the holograms are projected.

The aperture itself is lined with black shapes which are back-lit. According to reports from people who have played the new machine at the World Electronic Entertainment Centre in Marina Del Rey, California, the

holograms look real, if a little out of focus.

The game play features a Back to the Future, or even Star Trek theme. The player finds him or herself in the Wild West and needing to get home. Rather than any brain-teasingly complex puzzle solving, the game features a great deal of shooting-'em-up, down and sideways.

The realism of all this violence, the kills are repeated, has already led some observers to question whether or not such a game should be allowed in public.

It has also been questioned as to whether the game is too difficult. Even though a small training segment is available, featuring a young blonde woman, surviving the constant death dealing is far from easy - even if the third controlling button can be used to turn back time.

Sega has not yet announced when the game will be on show in Europe. One final fact of historical interest is that the person responsible for Time Traveller also designed Dragon's Lair. And for the record, his name is Rick Dyer. ■



\* The brains behind Space Ace have been creating Time Traveller which is not only a new game, but also introduces a revolutionary arcade machine



CITIZEN

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Silica presents some great offers on the award winning range of high quality dot matrix printers from Citizen. Each Citizen printer is built in the UK to exacting standards, ensuring superb reliability and a very high quality of output. Our confidence in the quality of Citizen printers is such that we are pleased to offer a unique two year guarantee with every printer. Plus, if you purchase your Citizen printer from us, we will give you a Silica Printer Starter Kit (worth £29.95), FREE OF CHARGE!

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RPP £220.80  
STARTER KIT £29.95  
TOTAL RPP £250.75  
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STARTER KIT £29.95  
TOTAL RPP £291.31  
SAVING £117.90  
BLACK PRICE £210.33  
+VAT = £231.33

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The Citizen Swift 9 is perfect for those who require high quality dot matrix prints at a budget price. The print quality of Swift 9 makes that of other manufacturers 12-pin models.

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- 2 LPS (30cps)
- 66 K Buffer
- Epson & IBM Graphics Emulation
- Advanced Paper Feeding
- FREE Starter Kit
- FREE Colour Kit

RPP £280.83  
STARTER KIT £29.95  
COLOUR KIT £29.95  
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SAVING £117.90  
BLACK PRICE £222.83  
+VAT = £245.11

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- 66 K Buffer
- Epson, IBM & NEC PG+ Emulation
- Advanced Paper Feeding
- FREE Starter Kit
- FREE Colour Kit

RPP £495.80  
STARTER KIT £29.95  
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**PRINTER STAND**

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Before you decide when to buy your new printer, we suggest you think very carefully about WHERE you buy it. Consider what it will cost you a few months after you have made your purchase, when you this printer's continuing peripherals or software, or some technical help and advice. And, with the company you buy from, contact you with details of new products? At Silica Systems, we ensure that you will have nothing to worry about. Silica Systems is one of the UK's leading independent computer retailers and provides a quality service to its users in consultation with customers throughout the country. Silica has been established for over 12 years, and has an annual turnover of £12 million. With our unrivalled experience and expertise, we can now claim to meet our customers' requirements with an understanding which is second to none. But don't just take our word for it. Compare and select the company that, for the same price, will look after you from the very first ring and begin to experience the "Silica Difference".

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To Silica Systems, Dept MCE 2001 - 50, 1-4 The Mews, Hatherley Rd, Gidcup, Kent, DA14 4DX

**PLEASE SEND CITIZEN PRINTER INFORMATION**

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Address: \_\_\_\_\_

Postcode: \_\_\_\_\_

Tel. Home: \_\_\_\_\_ Tel. Work: \_\_\_\_\_

Company Name (if applicable): \_\_\_\_\_

Which computer(s), if any, do you own? \_\_\_\_\_

I enclose \_\_\_\_\_

## NEW PRODUCTS

## Going up

**PRODUCT:** 386 PC upgrade card  
**NAME:** Hyperace 386SX  
**COMPATIBILITY:** PC (IBM PS/2 model 90)

Just because you have a 386-based PC doesn't mean that you have to be left out of the 486 speed stakes. A new upgrade board from Chippewah-based Hyperace means, according to the company, that 386s, beginning with the IBM PS/2 model 90, can be painlessly upgraded to 386 productivity.

The Hyperace 386SX card adds a 386SX processor running at 20MHz, as well as 64MB of cache memory. The additional cache memory is of the zero wait state variety. There is also a slot for a 80387 numeric co-processor.

The company tells us that both Norton SI and Landmark speed tests have shown that the installed card can increase processing speed to 50MHz.

**Price:** £448  
**Availability:** Now  
**Target users:** At the moment IBM PS/2 model 90 users, it is expected that compatibility with other PCs is forthcoming.  
**Contact:** Hyperace 0672 60836  
**Perceived competition:** None at the moment.

## WHAT'S NEW

The latest hardware and software in small, easy to handle chunks. The facts, the whole facts and nothing but the facts...

## Neural kids

**PRODUCT:** Neural Networking tools for Windows  
**NAME:** Neural Desk  
**COMPATIBILITY:** PC

Neural Networking was one of the buzz phrases of the late 80's and early 90's. People were then talking about computers which would be able to emulate the human brain before the century was out. Now they are becoming more serious about the possible applications.

Neural Desk is in fact a Windows-compatible software suite rather than a hardware-based brain neuron emulator as its name might lead one to believe. It features three modules: Neuroedit, Neuromodel and Neurosim. Basically the set-up enables users of neural nets to explore the potential of their systems, developing new applications or linking with existing applications, using the Windows graphical user interface.

To run the system you will need a 286 or upwards with 286 RAM, and a 28MB hard disk. Ideally a 386 with 267 math co-processor, 4MB of RAM, 40MB hard disk and VGA monitor are required. You will also need Windows 3 or later running under DOS 3.0 or above.



• Does your computer brain hurt? Well the remedy might be to lay your hands on some software to nudge its neurons

**Price:** £285  
**Availability:** Now  
**Target users:** Developers and users of neural networks  
**Contact:** Neural Computer Systems, 0703 867775  
**Perceived competition:** No other company is providing this kind of end-user/developer software for neural systems.



• Speed isn't everything, but it certainly does help when working through acres of spreadsheet. This board could help your 286 to live up to expectations

## Type cast

**PRODUCT:** New typefaces  
**NAME:** Typoglyphic Newsletter and Decorative collections  
**COMPATIBILITY:** PC

Desktop publishing is not just a matter of slapping pictures on a page. You also need text. Typoglyphic's new typeface collections seek to take on two ends of that area. The Newsletter set comprises two headline fonts, Futura and Trajan, and two faces for use in body copy: ITC Galliard and ITC Caslon. All four faces come in bold, italic, bold-italic and roman.

The Decorative collection features eight faces of a more flamboyant nature: Europa, Gorgel, Gargel, Wagner, Tador, Spalte, Mouton and Ravel. Again these come in the standard four weights.

The Typoglyphic range of fonts is compat-

ible with a wide range of desktop publishing packages working under GEM and Windows. These include Trimworks Publisher, PageMaker, DTPPress, and Ventura. There is also support for database packages such as SuperBase IV, Excel and dBase.

Both of the new collections come with extended character sets which make for clearer reproduction of accented character sets.

**Price:** £26.82 each. However a special offer which lasts until 31 October means that both packs bought together will cost £150.40.

**Availability:** Now  
**Target users:** PC using desktop publishers and database users  
**Contact:** GST: 0460 496789

**Perceived competition:** Highest up the list is BitStream with its range of PC-compatible typefaces.



• The Newsletter collection from Typoglyphic features some strong headline fonts to add character to even the dullest database output



• Games playing - is it all humbug? But maybe your hand to eye co-ordination needs a workout with a joystick and an infra-red joystick connector

## Sticks of joy

**PRODUCT:** Joystick and infra-red joystick connector  
**NAME:** GameFreedom Connection  
**COMPATIBILITY:** Amiga, C64, Atari VCS, Sega MasterSystem

Games playing, eye-to-hand co-ordination, reflexes being sharpened, or just brain boggle game? Either way you will need a joystick to stand-up or knock-on-down.

The GameFreedom Connection comes with eight position control which is possible to pre-set. There are also three independent fire buttons.

The Freedom Connector is a strange entry to the gallery of computer hardware add-ons, it is an infra-red connector for standard joysticks.

One end plugs into the computer, while the other attaches to the joystick. The company

claims that the joystick connector can even be carried around on your belt, whatever the use might be for that.

As a side issue, tech to page 36 and the Shoot from the Lip section to read extracts from the press releases relating to these products. It nothing else it might make you smile.

**Price:** GameFreedom 081-800 0304  
**Availability:** Now  
**Target users:** Games players  
**Contact:** GameFreedom 081-800 0304

**Perceived competition:** None as far as the infra-red connector is concerned. Companies such as Konix and Chester are direct competitors for the joystick. ■



## NEW! CARTOON CLASSICS PACK

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## EXPRESS MAIL

Haydn Fitz-Williams gets to the heart of the matter this week with your views on Public Domain pornography, games pirates and gives you a chance to voice your views on what you think of Express



## Plain insulting

Should you not be cautious - your response to P Young's letter is issue 143 - about the Pits?

Although P's only means 'one of', it is - and I quote my encyclopedia - 'specially used to indicate national ones of royal blood'. So perhaps you are a right royal bastard after all.

PS. Only joking

Alan B Cox  
St Clears

YES, AND CHECK OUT King Lear! I see just what they can do. For the more poetic amongst you, I do realise that Edmund is not in fact royal... but you still wouldn't mess with him.



## Confessions

I am most confess to pirating software, but recently I saw that it was useless, and did more harm to the software industry than I realised. So why am I writing? Well to tell you (and the public) why.

I pirated software because I was not strong enough to break away from the crowd a suitable phrase would be 'I followed the sheep'.

The fact was everyone else was pirating, getting away with it and having lots of fun with all their new games.

So I started pirating software and at one point I had over 30 contacts in some of the major groups.

Eventually the novelty wore off and the endless streams of jiffy bags, covered in sellotape got to me and I gave it up.

But the novelty wore off only two weeks into my swapping days, what about the other nine and a half months?

Well the swapping was really a cover-up to have a good time and meet friends, all the shows you could go to meet new contacts, a couple of times we would invite people down from the north to have a good time.

The point is that many pirates are not intent trying to rip the companies off but just try to have a good time with a few friends with a common interest in a field that are both comfortable with.

But don't get me wrong, this is not an excuse for my actions, but more the reason for why we do it. I know I cannot excuse my

actions and I agree with P. Bates of Derby that if companies were to produce games then my life as a born again buyer of software would be easier. Thanks for listening.

PS. If this letter is to be included please omit my name and address since I still know a lot of people who would be worried that I was going to start giving out their address and name to FAST.

This I would not do - and if I did I don't think I would survive till the end of the week... thanks.

PPS Any decisions to my friend to buy Pen Pal would be gratefully accepted.

AN

Somewhere in England

THE LAST LINE OF YOUR PS is quite fascinating. I would have thought that living in fear of your files an excellent incentive not to get involved with the art of computing. But maybe you're being a little hypocritical now?

Does any one know of any gangland killings, beatings or even threats ever having been made on account of Rainbow Islands or Kick Off? We would be intrigued to hear.

As for the rest of the points you made, you're right, getting together and meeting people is no justification for piracy. If these people are then keen to meet up, they could at least try to use all the pooled expertise to produce some high quality games. They could even set up a software house which markets these games as demo fare. But do they? No, it's far easier to rip other programmes off.



## PD magic

I had been planning on writing the above for several months. In this week's NCE you raise another hairy (hairy?) chestnut - pornography, so I thought I'd raise my two-pennorth.

I don't own a modem, and won't until Telecom loses its monopoly and reduce its charges. (The misspelling is deliberate). I am against porn being available to people under the age of 18. If you can be sent abroad to Bill Arabis surely you have the right to look at what you like?

I am against the nanny state, a situation which has worsened under the guidance of the most tyrannical nation this century. Porn is banned for all kinds of crimes, particularly those of a violent sexual nature. Both illicit and

Denmark have proved that there is not necessarily a link between the two and published statistics prove the opposite.

At 37 I have seen most types of porn from the sickening to the innocent (even films). It does make me wonder what goes on in some people's minds. I've seen some PD porn but none of it was particularly sexually pleasing. Some of it did exhibit a pathetic waste of programming ability.

What does surprise me is that shops and PD libraries blame the purveyors. They are responsible for any printed software, or porn, in their catalogue but I think we are all too concerned about the possible effects of unsavoury material.

The tabloid press made much of the connection between the RAMBO films and the Hungerford massacre. Where were their journalists when it was revealed

that Ryan didn't see those films, or any similar ones?

Hindley and Bradley made little mention of porn in connection with their despicable acts.

Believe many sick people, when caught, blame whatever is currently in vogue - be it porn, horror movies, computer games, or their mother-in-law, rather than admit that they themselves are at fault. The end result of this is further repression of individual freedom in what is far from being a free country.

To finish I have a couple of complaints about the best weekly computer magazine. The letters page should be at least three pages long and the time is 'bated breath' not 'bated breath' as many computer journals seem to think. I've seen the letter in more computer mags than you could shake your rod at.

Hope I haven't preached too

## WANTED!

### Your honest opinion of EXPRESS

1. To help us keep improving your favourite magazine, please fill in and return this form. /10
2. How did you buy this issue?  
☐ I ordered  
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3. Rate NEW COMPUTER EXPRESS in terms of value for money:  
☐ Excellent ☐ Good  
☐ Reasonable ☐ Poor ☐ Rotten
4. Out of ten, how much did this week's cover make you want to look inside? /10
5. How much does this issue appeal to you overall? /10
6. How does it compare with previous issues you've seen?  
☐ Much better ☐ Slightly better  
☐ About the same standard  
☐ Slightly worse ☐ Much worse
7. Out of ten, how useful did you find this week's main feature? /10
8. What do you like most and then least about this issue?  
 I most like .....  
 And I least like .....
9. Your name and address: \*
- \* Leave blank if you wish - but we may want to send you details of exclusive special offers
10. No stamp needed if posted in UK.
- Return to: NCE, Issue 144 Survey, Future Publishing, Friespost, Bath, Avon BA1 2XQ.

## ON THE COUCH



This week the Doc with the smuck takes a look at SIMONE HILL from READING. Simone wrote in and told us all about the machine she owns, her favourite software, and the machine which would meet her innermost digital desires. All this information came on the back of a cheap postcard. All the advice comes in expensive chunks (we're paying for it - Ed). If you would like a wee bit of analysis to smooth out the edges, then write to: Louise's Coach Clinic, New Computer Express, 30 Munroth Street, Bath, Avon BA1 2BQ. It could be the first paragraph in the next chapter of the book of your new life!

Now then Simone, take the ribbon from your hair, stroke it loose and let it fall. Psychoanalysis is here. So tell us about the computer-related items which rule your life...

- MACHINE OWNED: Amstrad ALT 386
- FAVOURITE SOFTWARE: Supercarc
- DESIRED MACHINE: Sun workstation

Well, there's really all I have to say at the moment, doc. There is a continuity to your present possessions which seems to suggest a need for security. Underpinned with a fetish for organisation and down to earthness (all the points in Simone's letter were neatly subbed, with margin notes explaining background). The letter ran to five pages.

All of this suggests a stable personality who merely wishes to see her name in print. And it is this which is most interest.

Yes, say that you want the Sun workstation because "it is a really sexy computer don't you think?"

No, computers are not sexy things. A transference of straightforward desire to a human object is a machine is a major sign of a deep-seated neurosis. Combine this with your wish to have your full address printed in order that you can 'get together with other like minded people' and we have a classic case of sexualised sublimation topped through the psyche with a large dose of superiority syndrome - the Sun. PHROGOSIS

You are ideally suited for a move to Helt where you could set yourself up as a government official and Tom Tom Mail Informer. Your need for organisation could be well used in a flowering bureaucracy. Your sublimated need for contact would blossom, and you would be thousands of miles away from the rest of us.

much. I look forward to your taking the piss in a forthcoming NCE letters page.

Bill For  
Derbyshire

WELL BILL, I HAD TO BUTCHER this letter in order to get at least some of it. Your initial points relating to privacy will, I am sure, be used at a later date. As for the question of the moment, PD, I think it's time for one point to be made clear. For some reason, everyone has picked up on the PCm angle. In the PD article, pornography was just one of the areas explored. The others were viruses, violence and piracy. What does anyone think about those?

As for the 'Tenny's state' argument... that was not what we were proposing. The proposition was to form an organised, publicly accountable union of PD members, hatching from within if you will. And with that in mind...



## Come together?

Following your article on PD in the NCE (issue 142) I feel I had better write to you concerning certain events about a year ago.

I wrote to your PD company suggesting a self-financed 'ombudsman' scheme. This was due to the fact that I had been blatantly ripped off by a certain PD company (DS for a disk) and I was concerned over the sexual nature of some disks.

I actually got to see some of these at a friend's house and was appalled.

I suggested that the PD companies should give a small per cent of their 'profits' (in Italia because they are not supposed to make any) to this scheme. This would go into a fund for the following purposes:

- To attempt to protect the consumer if a company liquidates
- To advertise to promote its existence
- To control the pornography available if not to ban it, to tone it down
- To get assurances it was for over 18 years only.

In return each company would get an official 'seal' for their ads showing that they complied were reliable. The results of this are perhaps more interesting. Out of some 30 libraries four (and a year later five) replied.

Two thought it a good idea but one could not afford the fee. The 1st I sympathise with. Quite honestly some PD libraries are non-profit making and have little spare money.

Then again some are not. One library rang me up. They told me the idea was awful because as how could I tell what was/was not offensive? They are now one of the biggest PD libraries in the country and continue to sell so called XXX disks. There is too much money in it to drop it willingly.

Twenty-five did not reply. That

alone speaks for itself. I would ask the PD libraries to do something before it is too late and legal restrictions control the established forum for new talent, and above all not waste the few elements.

Self-regulatory bodies - like FAST - have been asked to be the end beneficiary of all but a small mindless minority.

I fully admit that there is a problem controlling a supposedly nebulous PD forum, but PD companies are now well established businesses in many cases and are far from being in an ether.

I will discuss on this.  
Roy Chambers  
Cumbria

ROY, SORRY FOR NOT informing you that we were going to publish this letter, busy, busy you know. Anyway, I think we have already made our point in terms of ombudsmen for PD.

In terms of being too much money in pornography, ED companies to drop it willingly. I would prefer to be more charitable about the whole thing. There would not be any money in it at all if people were not downloading it from BBBS or buying it from PD libraries. Appropriation blame is an exercise which should be carried out with care.



## Service!

After a few weeks study of the various types of home computer available, we took the plunge and purchased an Atari STE some eight weeks ago. Being new to the computer scene, we did a lot of the right things and read up on all the need to know stuff in the popular magazines. In order to increase our stock of software we invested a modest sum of £15 in a selection of PD software from Jennix of Kent.

The software selected covered a variety of computer topics in order to increase our knowledge in these subjects. We are familiar with all the normal day to day operations of the desktop and mouse features offered on the Atari, but had genuine problems in 'opening' some of the programs sent on the PD disks.

Due to the disappointing results of this first venture, we sent a quantity of the disks back to Jennix listing the faults and problems we had found and rather than request a refund, selected some alternative titles as replacement.

Imagine our surprise when we read the letter from the Proprietor (Mr M Xee) especially the tone of the whole time that came back, with the final result of holding the returned disks to ransom for the petty sum of 38 pence.

Needless to say, Jennix will be keeping the ransom disks and we will most definitely NOT be trading with them again.

Please make your readers aware of the business attitude of

proprietors of Jennix towards their most valuable asset, the customer.  
D A & E E Dargin  
Chipperton

WOULD ANY REPRESENTATIVES from the company in question care to respond to this?



## Sexist or sexy?

I have never regarded New Computer Express as a sex stimulant, but the Trojan advert you ran last week is downright phallic. If it is 'really slinging to please' Trojan is coming at it the wrong way. Just what sort of market does it want to hit?

Was it not enough to make crude jokes about 'light guns in your pocket' in Trojan's competition feature? Do you have to go on about 'deep grip for good handling' and 'hoppers'? I'm surprised you didn't add it can shoot up to three metres and run from the mains.

I hope this is just a phase - you're going through it. It's no wonder we have a Trojan virus.  
Sharon Marshall  
Blackburn



AH YES, THE HOARY OLD question of subliminal sexual content to advertising. Cebury's Pike is now joined by Trojan with its light gun. Does anyone else have any 'I've spotted some sexual innuendo in computer advertising' stories? Why not send them in.



## Vic rubbed

What with history being cyclical, will my Vic 20 will ever come back into fashion?

JP Grigg  
Enth

NOT UNTIL NAPOLEON returns. ■

## Write Now

We're on the hunt for a few more people to help us reach him at Express Mail, 26 Monmouth Street, Bath BA1 2BQ. Send us personal replies, either written or typed, to: [write@ncc.com](mailto:write@ncc.com). We'll select the winners.

## On-line mail

Over a million 28.8kbit/sec us a letter Express has to do with on Asper's bulletin board (061 722 0250) when you can leave a note and ask questions.

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## AMIGA

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## SCALA UPGRADED

Fans of Silica Systems' acclaimed Scala presentation system will be pleased to learn that a major upgrade is now available. As reported exclusively in issue 143 of *New Computer Express*, Scala 2.0 is virtually complete, but the latest version bridges the gap between the two releases.

Since its release, Scala has rapidly become the Amiga's best selling presentation system, outstripping its main competitors by a clear margin. With the release of version 1.1, Scala has become the most powerful presentation program available for the Amiga.

## Features include:

- **ANTI-ALIASING** - As any video enthusiast will tell you, even the Amiga's high resolution screen modes can still lack a bit of jaggie when displaying video text. Version 1.1 of Scala has welcome anti-aliasing built in as standard, giving the impression of a much higher screen resolution with smooth, jaggie-free fonts.
- **ARFX SUPPORT** - Scala 1.1 offers full support for ARFX, a system which

enables various Amiga programs to communicate with each other. This means Scala can be directly controlled by other Amiga-compatible applications, making it ideal for multimedia.

- **COLORFONT SUPPORT** - Now you can take advantage of all those beautiful ColorFonTS from Kato. This should have really been included in version 1.0. The one drawback with ColorFonTS is that as soon as you import a second ColorFont, it affects the palette of the first, changing its characteristics substantially. Scala avoids this problem with its powerful (and fully automatic) palette remapping facility.
- **CUTLINE FONTS** - When used on a machine with version 2.1 of Workbench, Scala 1.1 fully supports Dotsperpage Cutline fonts such as those marketed by Gate Disk for use with its range of DTP (Desktop Publishing) software. Cutline fonts allow you to produce text at any point size without retooling pages.

Scala costs a hefty £254.95. Look out for a full review soon.

☎ Contact Silica on 081-330 1111.

## SOUND ENHANCER

You've probably read all about Omega Projects' Sound Enhancer in other publications, but to date nothing has been seen of what is being called the most revolutionary sound-related product ever. The manufacturer claims that the £35 unit improves the sound quality of the Amiga beyond recognition. Is it true or is it just hype? Read on to find out.

Thanks to those very nice people at Omega Projects, I've been lucky enough to have been able to have a play with the only Sound Enhancer in existence. At the time of going to press, Omega was still waiting for both changes and PCBs (pleasee! Contact Boards!) to arrive, but I managed to take the company into partnership with its one and only production model.

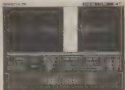
The Sound Enhancer was originally designed for use with Omega's Sound Trap II sampler, a quite excellent little package for around £30. However, it will also work equally well with virtually any program that produces sound via the Amiga sound chip (MD applications won't be affected). This includes all games, music packages and samplers - even the Intuition Display Beep! function sounds nice!

The unit plugs in between the Amiga's sound jacks and either your monitor or hi-fi

(depending on which you use). It takes its power from the serial port via a little cable with a 25-pin connector. On the front of the unit are two controls, a proportional knob which controls the unit's effect and an on/off switch.

I must admit that I was a little sceptical when I first heard about the Sound Enhancer, but actually seeing one in use like has more than put those fears to rest. Put simply, I was absolutely amazed at the difference it made.

The greatest effect was on high frequencies (treble etc), but it also makes other frequencies sharper, including bass and mid range. The net result is far punchier bass and a quite superb high frequency response. It's almost like having a brand new sound chip installed inside your machine.



● Omega Projects' new Sound Enhancer works particularly well with sound samplers like AudioMaster. For a mere £35, it improves the quality of the Amiga's sound way beyond belief.

## FEED YOUR ST!

## MEMORY UPGRADES

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At prices as low as £140.00 for the 4Mb upgrade, it's a real bargain. See the full details in the latest issue of *New Computer Express*.

| ST(FM) KITS                       | Price   |
|-----------------------------------|---------|
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| 1 Megabyte board Expands to 2.5Mb | £64.00  |
| 2.5 Megabyte Plug in Upgrade      | £115.00 |
| 4 Megabyte Plug in Upgrade        | £225.00 |

## EMULATORS

| PC EMULATORS  | Price   |
|---|---------|
| PC SPEED hardware emulator for ST/Runs 4 times faster than standard PC. Full I/O compatibility. | £96.00  |
| AT Speed 10MHz 286 Processor Norton 8.3.  | £135.00 |
| AT Speed STE adaptor  | £220.00 |
| Specs GCR MAC Emulator (including ROMs)   | £245.00 |
|   | £320.00 |

## CHIPS Etc.

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If you enjoy the quality of the Amiga's sound, then you'd be a fool not to get your hands on a Sound Enhancer.

❖ Design Projects is on 0695 768885.

## MASS STORAGE NEWS

As any hard disk owner will tell you, backing up a hard disk can be a real pain. Even a fairly small capacity drive like Commodore's own A590 can take literally ages to back up to floppy disks using a utility like QuikBack. But once you start talking in terms of 800mb and more, major amounts of both time and disks are required.

However, there are alternatives. One of the most popular backup systems used by the corporate market is the TapeStream, a sort of glorified tape recorder. Several tape streamers are already available for the Amiga (the Xerox unit, for example), but US-based TTP Developments have come up with a system to beat them all: its Digital Audio Tape-based SCSI tape streamer can backup a massive 1.3 Gbytes (that's 1,300Mb) onto a single tape. What's more, it's fairly cheap – the US price is just over \$200. This price includes the SCSI-compatible tape streamer hardware, all the necessary software and a single 1.3GByte cartridge.

❖ TTP is on 010 668 277 8071.

If you're after something a little different, Xerox's new MDX-600 Optical drive may be just what you're looking for. This 600Mb optical drive offers the storage capacity of a CD-ROM but with a major difference – you can write to it as

many times as you like (unlike WORM drives which can be written to only once). What's more, it uses removable cartridges, which allow you to increase the storage capacity still further simply by buying new cartridges.

No price details are available yet, but if/when you know as soon as Xerox get back to me.

❖ Xerox is on 010 913 827 0685.

## SNIPPETS...

Comex have after even faster transfer rates may well be interested in the new SupraModem 3600 from the Supra Corporation. It supports the V32M4bis standard which allows rates of up to 36,000 bits per second (bps) – that's over 16 times faster than even the fastest 2400 baud modem!

The unit offers full error correction and automatic adjustment to the optimum rate and protocol. It costs \$700.

❖ For more details contact Supra on 016 166 0727 8772.

Fancy a completely hard disk-based Amiga 500? If so, then ICD's new Proxa may well be for you.

It's a high performance internal hard drive system for the A500 that replaces the internal drive inside the machine with a high speed SCSI drive. And, with ICD's Shuttleboard extension, you can have your external drive (you'll have to buy one if you want to use floppy), act as drive DFO.

❖ For more phone ICD's UK distributor Slice Systems on 081 389 1111.

Jason Holborn

# ST

- Mac or PC: which should the ST emulate?
- British adventure with the Lucasfilm feel
- Control a whole MIDI empire from your ST

## FOURTH AND FINAL ST

Atari has some serious plans for the ST. Sam Tramiel revealed that the company has four new STs on the way. It has already announced the two portable STs, Style and Pad, and has even shown prototypes of the machines in a Chicago show three months ago. The Falcon super-computer is the third ST and now details of the fourth are coming to light.

The computer press has been buzzing with the news that the fourth ST would be an ST-PC, or an ST with a PC emulator inside its case. Everyone at Atari denies this will become reality, but now the full story is emerging.

It seems that Atari has been toying with the idea of an officially badged PC emulating ST for a long time. It produced a couple of machines and ran feasibility checks as to whether such a machine would sell. However, during that research period the company apparently decided against it.

On the face of it, an ST-PC seems like a great idea. Not only would you have all the benefits of the machine

range of software for the ST, but also the possibility to run PC software. Most businesses still cling to the MS-DOS standard, so an ST like this capability would have massive cross-market appeal. However, there are inherent problems associated with this.

For a start, no matter which PC emulator Atari used, you still couldn't run colour VGA graphics. These days the only PCs worth their exorbitant price are VGA (that is high resolution) machines. The vast majority of emulators available for the ST only support monochrome CGA or EGA graphics at a vastly reduced speed.

Given these limitations and the cost of releasing an ST which did emulate a VGA PC, it's not surprising that Atari would be unlikely to release such a machine. After all, you can buy a PC very cheaply these days and files from those computers can be read straight from the desktop by any of the ST range.

What would be a clever idea would be for Atari to release an Apple II. Continued on next page ▶

Supra

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# PC

- New low cost DTP program from Microsoft
- The 8514/A is dead - long live the XGA
- Ventura for Windows in glorious colour!

## MICROSOFT TURNS PUBLISHER

Microsoft is completing work on an entry-level desktop publishing (DTP) program for Windows slated for an Autumn release. Publisher for Windows, expected to sell for under £199, will also be Microsoft's first DTP package.

Publisher includes Page Wizard, a tool which enables you to custom design your own pages determining such things as the number of columns and where pictures should go. It also includes a spelling checker, a text editor and a 'border' feature, which duplicates a picture around the edges of a document.

However, what Publisher lacks in sophisticated graphics and frame-handling capability - you cannot link a picture within a frame to its caption. And it doesn't have any style sheets either.

© Microsoft on 0734 566741.

## COLOUR VENTURA

Sophisticated colour capabilities within Ventura, which have previously been the sole domain of the Macintosh, will now

make the transition to Windows via a joint development agreement between Ventura and Pre-Press. The new colour features 38 users view images on screen in full colour, rather than seeing a black 'X' where the graphics are to be placed.

The development effort between

Pre-Press and Ventura has also resulted in four new modules - a scanning program, an image manipulation program, a colour separator for novice users and a professional colour separation program.

Each will be sold as 'Professional Extensions' to the base publishing product but each can be used as stand-alone products that will be accessible directly from the Ventura Publisher for Windows menu.

## 8514/A BITES DUST

IBM is to discontinue its high-resolution 8514/A graphics board from October 2, although it will support boards that are in use. The move may help to promote XGA - a graphics board IBM wants to

establish as the next desktop computer standard - but it won't be welcome to non-PS/2 and low-end computer users.

Although the document less XGA as a replacement product for 8514/A, it can't be used in 286 or non-Micro Channel Architecture computers (e.g. ISA and EISA), two areas where third party vendors of 8514/A could be used. IBM has promised to release an ISA version of XGA, but hasn't said when it will be ready to ship.

## MERGE SURGE

Is it the hot weather or something? First Bortard and Ashton-Tate merge and now Novell is set to buy out Digital Research for a mere \$80 million.

Continued on next page >

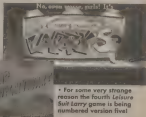
## LARRY 4, ER, 5!

Leisure Suit Larry is back in his fourth adventure - although for some reason it will be known as Leisure Suit Larry 5 - Passionate Patti Does a Little Undercover Work (don't ask, it's a long story).

In the latest episode you play both Patti and Larry. While Patti investigates corruption in the music business for the FBI, Larry hunts for the 'Sexiest Woman' - nothing changes, huh?

Leisure Suit Larry 5 promises to be raunchy, sexy and thoroughly disgusting - much to the relief of the many Sierra fans out there!

© Sierra on 0754 303322.



For some very strange reason the fourth Leisure Suit Larry game is being numbered version five!

## IBM PC MUSIC SOFTWARE



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## Finale 2 is here!

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⇒ Finale runs under Windows 3 (compatible with Adobe Type Manager).

⇒ Finale notates in real-time via MIDI, as well as reading and writing Standard MIDI Files.

⇒ Finale prints to any printer supported by Windows.

⇒ Finale has the best resolution of any music program!

⇒ Finale has overwhelming music editing options.

Finale is the most capable notation program available... it will notate just about anything, and the results look gorgeous.

Keyboard/February 1991

Finale 2 costs £699 (including VAT at 17.5%)



## Voyetra Sequencer Plus Version 4

Voyetra Sequencer Plus is arguably the industry standard sequencer for IBM machines. It is in use in many commercial recording studios worldwide. Version 4 supports almost all MIDI interfaces (including the IBM PS/1 MIDI card) and sound cards (including Ad Lib, SoundBlaster & Roland LAPC-1 cards).

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## MACHINE SPECIFICS

◀ In May AT&T spent \$7.2 billion for MCI, and Lotus spent \$85 million on Samna Corp last Autumn.

However, it appears that the sudden flurry of mergers has been sparked by a new marketing trend. Doug Rame, an analyst with DataQuest, explained, "There is a whole new marketer mentality. Market technology is not as effective as earlier in the industry's history. Buy-outs, mergers, acquisitions and strategic alliances are becoming part and parcel of how the industry does business."

It appears that the by-word is diversification — companies devoted to one primary product just cannot afford to go it alone. However, firms in niche markets, such as graphics, have a greater opportunity to grow by expanding into related categories. The merger trend is, apparently, the industry maturing rather than a leveling off of growth.

"This is consolidation, not consolidation," notes Charlie Friedman at Broadview Associates, an American firm specialising in software mergers. "Consolidation implies that the industry is shrinking and there are a smaller number of companies. That just isn't the

case. With the growth comes bigger companies that can now afford to make larger purchases."

This encourages the formation and development of smaller companies. Well, that's the theory anyway.

## NEW SHARPER PEN

Microsoft's latest beta version of the Windows for Pen Computing OS incorporates features specifically designed to take advantage of the pen-based platform.

New features include such capabilities as gesture support, which will allow you to create simplified macros. For example, you could establish a set of movements for inserting a paragraph of text, or bolding an area.

The system will also include training as the fly, which conditions the operating system to the user's personal handwriting style.

Pen-aware features in Windows for Pen Computing are comparable to those in the Corp's PenPoint, such as context-sensitive editing, handwriting customisation, and raw ink, which refers to text that is left unformatted on screen. Microsoft is on track to meet its deadlines and aims to ship the final version of its OS in December.

In early September, Microsoft plans to release another beta that will include a completely rewritten handwriting recognition engine which will be able to recognise overlapping letters.

Paul Rigby

## CPC

- Codemasters' Quattro Cartoon reviewed
- Help for 3.5-inch disk drive owners
- Cheats to banish those multiface blues

## QUATTRO CARTOON

Just how big is Codemasters' back catalogue of games? The company has just released its unimpressive Quattro compilation, and shows no sign of slowing up.

The Quattro packs all contain four 1/4 games, but sell for a budget price of £3.99. And the latest offering, Quattro Cartoon looks particularly good value. On offer are:

- Wizard Willy is an excellent scrolling platform game. You play the part of Willy, and your job is to kill all the monsters in your path using your trusty magic lightning bolts. You can pick up extra energy and points along the way, and special 'vanish' spells (smart bombs) for when things get too hectic.

The graphics are excellent, the soundtrack is brilliant and Wizard Willy is a superbly playable

Codemasters could have got away with selling it as a full-price game (but keep your voice down).

● Little Puff is even more cute. He's a little dragon who's accidentally become lost, and all he wants to do is find his way home. Unfortunately, he can't get back into dragon-land without collecting four passes scattered about the landscape.



• Wizard Willy: excellent graphics, a great soundtrack and real playability

## DOS-5 CORNER

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• The excellent *QW* and *Lisa 3* is the best of a very good bunch on the latest Quattro games compilation

Needless to say, they're pretty well hidden, and there are plenty of treasures out there you're getting from. However, there are objects you can collect to help you. The graphics aren't in the same league as *Wizard Willy's*, but they're still not bad, and the game plays nicely.

● *Frankenstein Junior* is distinctly grisly. Your cobbled-together dad has gone uncollared, and you have to go round collecting the various bits and pieces of his bod so that you can put him together again. The scene's fast and fun, but there's really not a lot to it.

● In *QW* & *Lisa 3* the anonymous characters want to build a car, but they don't have all the parts. These are to be

found in the rooms of a castle – but which rooms? Not only that, but parts of the castle are invisible until you've collected a magnifying glass.

Once you've collected all the bits and pieces you still have to put them together. This means finding the right tools and the chaps to do it. The graphics are pleasant and well-animated, though the control method takes a bit of getting used to. Get round that and you're looking at the best game of the bunch.

For £3.99, it seems churlish to pick fault, doesn't it? These Quattro compilations really are stupidly good value for money. The only weak game on this latest compilation is

*Frankenstein Junior*, but even that's good for a couple of hours on a wet Wednesday afternoon. The other three are little gems.

## MULTIFACE TIPS

Here's a tip sent in by Mike Slobodman a while ago now. It might help a few people struggling to save games with the Multiface.

"You'll know that Multiface II Plus does not save all your games properly and some of them will crash (Bubble Bobble, Super Hang-On). I have found a way round this:

- 1 After a failed attempt at loading the desired game – and you're sure it was the last of the Multiface – reset the computer.
- 2 Press the red button, but don't take your finger off.
- 3 Press the reset button and let go, still keeping your finger on the red

button.

4 Let go of it now, and the computer should either return to BASIC, or press R for Return, and then it should restart.

5 Load the required game straight away.

6 When it has loaded, press the red button (followed by Clear if it is not a 6128-only game), and save to your disk straight away. Switch the computer off and then load it from your saved disk.

This should work for everybody with a Multiface II Plus. It works for me, and I now have just about all my tape games on disk."

Rob Lawton

Rob Lawton is editor of *Amstrad Action*, the biggest, best and brightest magazine for the Amstrad CPC. Buy a don't you newsgate every month.

## SWAPPING ASCII FILES

If you have a 3.5-inch second drive, the chances are that sooner or later you'll be wanting to experiment with swapping ASCII text files with IBM PC clones.

Well, it won't always work. And it could be due to something pitifully simple, as Mike Picking of Halesburg, Danfarnborough, explains:

"When using a large capacity

second drive and IBM PC compatible file formats, always type upper case letters when you save your files. The software does not necessarily do the lower to upper conversion found in AMSDOS and some IBM clones will not read filenames in lower case ASCII."

Anybody out there kidding themselves? Easy when you know how...

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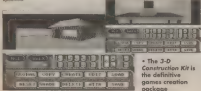
- 3-D Construction Kit review special
- Create your own games and worlds!
- Cheats galore for the Hits compilation

## CONSTRUCTIVE CRITICISM

3-D Construction Kit is here. And what a carker it is, too!

Having first flicked through the rather hefty manual I was very tentative when loading the package. But I needn't have been.

- It leads in three sections:
- The Environment editor allows you to create and manipulate your 3-D world.
- The Condition Editor is where the game's conditions (or rules) are specified.



• The 3-D Construction Kit is the definitive games creation package

- The Compiler, which transforms your creation into a standalone game.

The basics behind 3-DCK are very simple. Your 3-D world is divided into areas, of which up to 254 can be used in each game. You cannot go beyond the boundaries of an area, but entrances can be defined using the editor.

Once an area has been established you can begin to build whatever it is you want to build. A potential nightmare? Nope! Incredibly simple in fact.

You summon 3-D shapes (cuboids

and pyramids) and 2-D shapes (rectangles, lines, triangles, hexagons, quadrilaterals and pentagons) into your world, where they can be stretched, shrunk, rotated, moved and shaded. This is initially awkward owing to the screen not being specified in this manual, but the concept soon becomes second nature.

To build more complicated structures, different shapes must be joined together. For instance, I made a house from a stretched cuboid with a stretched pyramid on top. The door was a 2-D rectangle pushed right up to the cuboid, which, incidentally, is how all doors are created (not in master windows). And I'll look just master.

Shading is a breeze - the desired face of the current object is selected, then the required hue is highlighted and bingo! It's just a pity there is no facility to create your own colour combinations. Having said that I can be done with a machine-code monitor.

## TOTAL CONDITIONING

When you have constructed your world, the real work begins when you load your environment into the Condition Editor. 3-DCK utilises the Froscap Command Language (FCL) which consists of 40 or so commands and small routines (or procedures) can be constructed to bring the game to life.

This is possibly the one factor which will deter many people from taking the plunge, as many are reluctant to learn new languages.

- GENERAL conditions are those which

are enacted constantly, such as score, energy levels, etc. and essential shocks and cues should be included.

● LOCAL conditions only apply to the area currently occupied and are concerned with all processes in that area.

The language is a step up from BASIC, relied very easy to pick up. Variables can be manipulated (for scores, etc), colours changed, objects destroyed or moved, sensors activated, text messages displayed, and sound effects triggered.

Creating your world could take a matter of hours, but the FCL will take quite a while to master. But let's face it, you can't expect to have a complete game up and running without any effort whatsoever.

Your final game can be enhanced by an attractive border, created using the Asapad Art Studio, although the examples included could be used if you're hopeless at art.

In conclusion, the 3-DCK is the games creation package and a whole lot more besides - I know of one chap who used it to plan out a house extension! Creating something along the scale of previous Froscap games is possible, but will take time. Indeed memory is tight right from the start.

If you are prepared to master the Froscap command language, and have the imagination to create amazing 3-D worlds, then 3-D Construction Kit is all you will ever need. The whole package is almost flawless, with only a few blemishable quirks.

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A final point to note: if you buy the Kit from your local software store you will receive the program itself (on tape/disk), the manual plus a tutorial video. However if the Kit is ordered from the Home Computer Club the video is not included. This is due to QuarkWerk Smith having different contractual rights with Incentive and indeed there is a hefty price difference.

Andy Roberts

## CHEATS GALORE

Even though the Hits compilation isn't available in the shops until September, the following cheats may be welcomed by people who own any of the games respectively:

- **Backstage** - Type I HATE BROS at the very bottom-right of the screen before loading the game.
- **Share** - Holding down one of the function keys when pressing the start button the game will activate a cheat: one gives infinite lives, one instantly kills the other instantly kills all others.
- **Summer Camp** - Enter your name as CALABITY on the high score table for infinite lives.
- **Crashers** - Plug your joystick into port one and wait for the title music to stop, then wiggle your joystick like crazy when the high score table appears - when the Clyde turn grey, put the joystick back into port two to start the game with a difference.

## SPECTRUM

- **Getting in touch with cheap modems**
- **Garner Designs responds to its critics**
- **Revealed! All 30 passwords for Riptoff**

### CHEAP MODEMS

The wonderful and exciting world of computer comms is also a pretty expensive one. Never having enough cash for the necessary state of the art communications equipment, not to mention living in fear of telephone bills larger than the national debt at Bazel, comms is an experience which I have always missed out on.

That could all soon change, though, with the discovery of dirt cheap modems. A company called 80 Services is selling the standard Speedy modems, the VTX5000 for £159 (£220 for a Plus 3/Plus 2A version). This represents astonishing value for money and at little more than the price of your average piece of software gives you access to bulletin boards, BBSes and multi-user games amongst other stuff.

I think I can safely say this is a genuine bargain and almost certainly the cheapest way of involving yourself in the world of telecommunications.

Contact 80 Services at 64 Ronebeck Road, Chessington, Surrey KT19 1JX for more details.

### KEYPAD CORRECTION

A few columns back, Daniel Wynne revealed the deep secrets of the mysterious 102K hidden editing functions. Well, Alan D Cox of Dylded has got in touch to tell us of a few omissions.

- Delete from the character the cursor is on and as far as the next space to the right should be extended mode then III
- Cursor to the start of line can also be graph key, Y, graph key
- Cursor to the end of line can also be graph, X, graph
- Graph, W, graph in Extended mode then II moves the cursor to the beginning of the program
- Graph, V, graph or II mode then I goes to the end of the program

### GARNER REPLIES

The Garner Designs database continues this week. Regular readers will probably remember reading two letters in this column recently criticising Garner Designs, one time organisers of the acclaimed Plus 3 Users' Group and now publisher of Sinclair's SAM Computing magazine.

I asked for further response and got plenty of it from other dissatisfied customers as well as Daniel Garner himself. Paul Glover, 1696a Lark, James Platon and John Lord all wrote complaining of cashed cheques, long waits and disappearing goods when ordering things from the company.

Some had been previously happy members of Plus3UG and been genuinely disappointed in the poor service they've experienced lately in this way or another.

James Platon summed up feeling well by putting the question, Are they a group of enthusiasts who have bitten off more than they can chew or budding entrepreneurs who think only of profits and forget the customer?

Paul Glover asked if Daniels is trying to sell his products the magazine, one supply mail order gods it needs encouragement and understanding, but we need to be told what's going on.

Which is exactly what Daniel Garner, proprietor of Garner Designs, wrote to tell me about. I've had to chop bits out of his letter but hopefully this is a pretty fair edited version.

In reference to the non arrival of orders and long delays, Garner did let some of the blame with his local selling office which has given him, intermittent, yet persistent problems with his (and other companies and individuals) post going astray.

However, he goes on to say, There have been some delays at our end since

Continued on next page >

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## MACHINE SPECIFICS

◀ Early 1991 caused by the massive undertaking required to launch Sector 2 SAM Computing.

While we believed the new magazine would be popular we did not, and I believe could have, forecast the sheer number of new subscribers we received within an extremely short period.

For a company, which at that time was geared up to deal with the relatively small scale associated with the Plus3 User Group to be suddenly and unexpectedly having to cope with a flood of subscriptions, it was inevitable that the system would not cope.

Having said that, I think we've done extraordinarily well in coping and the backlog is quickly coming day by day. Within a couple of weeks it shall fit up to the operating speed which you and your readers to date associated with

the Plus3UD. We've also taken measures to ensure such delays do not recur: should we get another large increase in orders again.

So to sum up, you have my personal assurance that Garner Designs is working flat out (and I mean 110 per cent flat out) to clear what backlog remains. We have done, and will always continue to provide back-up to all our customers, even when we don't have to.

Many thanks to Daniel for putting the matter straight. Garner Designs has been one of the Specy users' staunchest allies and best friends in the past. Let's hope it can regain its old form and return to its professional and user-friendly ways without delay. Sorting out the above readers' problems would be a good move in that direction.

Robin Aylay

## PSSST, WHAT'S THE PASSWORD?

Here for the sake of your sanity, score and game playing reputation are all 30 of the latest passwords for *Rigort*, the really rather good game recently included on a Your Strainer cover tape. They were painstakingly uncovered by two faithful Specy tipsters, Matthew Wilson and Mark Harris.

|              |                |               |               |
|--------------|----------------|---------------|---------------|
| 1 UMBELDOP   | 9 BAD          | 17 KIT-KAT    | 25 SPACIOX    |
| 2 WEE PAUL   | 10 UCORSH      | 18 GEEZAHAND  | 26 HAREQUIN   |
| 3 MONOCHROME | 11 GLOBBITS    | 19 FLOSBORUM  | 27 BASQUILLAI |
| 4 MOUSSE     | 12 COCKORANT   | 20 GOLDS PRY  | 28 SAWO BHRD  |
| 5 NINI       | 13 SKREEM      | 21 TRI CLASSO | 29 ULASNO KLA |
| 6 EMPIRE     | 14 FRASSTRATIN | 22 FAR 2 TUFF | 30 CHIK FOME  |
| 7 MACALLEY   | 15 RANGORPSC   | 23 PUZZLOGLD  |               |
| 8 YOU B—D    | 16 GALLOSD     | 24 KANGIS BLD | Thanks guys!  |

## MACINTOSH

- Notebook-sized Macintosh 'clone'
- New Claris integrated software launched
- Secrets of the 'Map' desk accessory

## RUMOURS...

Apple has finally announced its deal with a Soviet computer distributor, as predicted in this column two weeks ago.

The Moscow-based company, Informaco, is to receive its first shipments of Macs in September. According to the company's technical director, Anatoly Karpinsky, plans are in hand to release local language editions of several Mac packages by the end of the year.

A top Apple executive, Pacific region vice president Ian Derry, has been quoted in an Australian newspaper as saying that IBM is vying for Apple's future. When asked what he thought about the possibility of the recently announced Apple/IBM deal falling, he replied, "I don't like to think".

He also said that he expected the link with IBM to add at least \$1 billion per year to Apple's sales, starting in two or three years' time.

What US Apple chiefs think about one of their executives admitting things like this is not known.

The Massachusetts Department of

Revenue has thrown a slight spanner into the works of the Russia Macfield Expo. The Department has decided that any company selling goods at the show will be liable for collecting Massachusetts sales tax for the rest of the financial year.

This will provide major administrative headaches for many companies and at least one, the MacConnection division of PC Connection, a New Hampshire-based firm, has pulled out of the show because of the decision.

According to David Hall, executive vice president of PC Connection, the show wasn't worth the risk of being stuck with the sales tax liability.

## OUTBOUND NOTEBOOK

Remember the Outbound laptop? You know, that's the Apple-approved, Mac-compatible machine which 'locks' to a Macintosh. Well, apparently Outbound is about to ship something called the 'Outbound Notebook System' in the next couple of weeks. This is a computer which provides full Mac compatibility in a notebook-sized case.

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Weighing around 6lb, the Outbound notebook is 17x10x2.5-inches in size when folded down, and can be configured to include both a standard 3.5-inch floppy drive and an internal hard disk of up to 60MBs — in direct contrast to Apple's new portable machine, expected in October, which will need an external floppy drive.

The notebook's mouse replacement is a new version of the company's Joystick device, called the Trackball, and the display is likely to be a 10.4-in, 10-inch LCD.

Powered by the type of batteries normally found in portable computers, the notebook will be available in a number of different configurations, ranging from a 20MHz 68000 processor machine up to a full 33MHz 68030, and will be able to support a RAM disk of up to 60MB in 600. The price of the machine will start at around \$2,899 and will go up to \$4,299 for a 68030 machine with 62MB hard disk.

Expect to see the new Outbound Notebook on sale in this country in about two months' time — full details of UK prices as soon as we get them.

## CLARIS INTEGRATED SOFTWARE

Apple subsidiary Claris has announced the release of ClarisWorks, a new integrated software system which is targeted at first-time buyers of the Mac.

ClarisWorks features several integrated modules: a word processor, graphics module, spreadsheet, drawing,

database management and a communications unit. Unlike other integrated packages, ClarisWorks doesn't force the user to switch between different modules to perform different tasks; instead, all tools are available from within the main document window.

Because the modules within the program are based on Claris' own programs (such as MacDraw, MacDraw Pro, the spreadsheet) and FileMaker (the database), ClarisWorks is an ideal first buy for people who can then upgrade to the fully featured programs if they wish.

The suggested retail price for the package is £195; in addition, owners of

Microsoft Works, Symantec GraffitiWorks and PageMaker can upgrade to ClarisWorks for £50.

Claris is on 0800 906605.

## PRODUCT NEWS

Altiris has announced that Fontographer 3.3 is now shipping.

The new version of the program has been upgraded to include the ability to read and write TrueType fonts for the Mac and PC (at least, for PCs running Windows 3.1, which will have TrueType support but which was supposed to have been released in January).

Fontographer is virtually an industry-standard font creation package, so the

inclusion of TrueType support is vital if the program is to maintain its position in the market.

For further details contact Selene Distribution on 091-642 4242.

Microsoft has announced a product called Microsoft Project, which is a powerful and flexible graphical tool for managing project schedules, tasks, budgets and resources. 'Naps, I don't know what that means either, but if your eyes lit up when you heard the words you'll be pleased to hear that the program will be available in August' at the suggested retail price of £495.

Microsoft is on 0754 506741.

Ian Wiegley

## POSTCARD FROM AMERICA



The original Macintosh bundle came with a handful of little utility programs called 'Desk Accessories', available only through the Apple menu. System 7 has almost done away with DAs, so that any file or application can now be put under the apple. Other new types of small, but useful programs, Control Panel Devices (CPDs) and Extensions (formerly INITs), have become popular as the Mac has grown up. The Map Control Panel is a good example.

Even modest programs have hidden features. Here's more than you ever wanted to know about the Map.

- The standard Map is black and white, but colour machines were not forgotten. In the System 7 Scrapbook is a colour PICT of a world map which was specifically designed to replace the standard map. In fact, any PICT can be pasted in—Microsoft Mouse or Windows naughty bits can become your home town.
- If you're having trouble seeing your place on the map, by

holding down the Option when opening the program to get a zoom view. The Option + Shift key moves down even closer to ground level. Holding down the mouse button while scrolling a city will list its name.

● Holding down the Option key while clicking on the Find button scrolls through the cities alphabetically. Try finding the place 'Middle' for a cute surprise.

● Clicking on the words 'Time Zone' will change to 'Time Difference'. Map will show you the difference in hours, and the actual time there. You can use the 'Set' command to fool your Macintosh into believing it's in another time zone.

● There was quite a stink on the Internet about what municipalities were left off the Map list. Fortunately, any city can be added to the program. Edinburgh, Cardiff, London, and Dublin are found in the US version.

David Morgenstern

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|                          |        |
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# WHOLE WIRED WORLD



Off the wire this week, Steve Gold reports on the long-awaited Atari control panel, Aussies who think CDTV is fair dinkum, an adaptor to link your PC to your ST, and promising new add-ons for the video toaster

## ISRAEL LOSES ATARI CONTRACT

It looks like Atari has put the stoppers on plans to build a \$20 million computer manufacturing facility in Israel. According to a fax sent from Atari to Zvi Karon, the head of Israel's Trade and Industry Ministry, Atari has zipped the project, blaming Israeli book-dragging.

In the fax, Atari claims that it told the Trade and Industry Ministry on 26 June that it needed a reply no later than 21 July. Since the reply never arrived, Atari said it was withdrawing the proposal.

For their part, Israeli ministry officials claim that Atari's formal request for the investment arrived on 16 July, and that a ministry commission had intended to meet in late July. They expressed hope that Atari would reverse its decision. All the signs, however, point to the project being cancelled.

The Israelis Atari with only limited production of its machines, with the bulk of manufacturing contracted out to third-party companies. Contracting out is a financially efficient method of production. However, contracted out is an early stage of PC production – but it does mean that a company is at the mercy of the contractor. If sales skyrocket, arranging for extra machines to meet demand can prove tricky.

## CONTROL PANEL FOR ST AND TT

After several months of rumours and promises, Atari has finally released its new control panel for the ST and TT machines to the public in the US. First reports suggest that the new graphics front-end for the ST/TT series is well worth the wait.

When the rumours about the new control panel started last year, more in the industry thought that it would only work with the TTs and Mega STs, but according to an Atari representative, it will work on all ST, Mega, STX, STE, Mega STE and TT systems.

Basically, the principle seems to be, if it's TOS-driven, the computer will run the new control panel. So what is the new control panel? Depending on where you first heard about it, the new control panel comes under several names – the new control panel, X-control, and the extended control panel. Despite these working names, its official title, in Atari circles at least, is the 'extendable control panel' or ECP for short.

The ECP is a replacement for the old control panel seen on the ST. Like the first control panel, the ECP allows users to configure the ST's systems – device-click rate, key repeat rate,

The Commodore Amiga continues to gain the edge on the Atari ST. Reports just in from Australia suggest that the World of Amiga show, held in Sydney in late July, was a great success, with almost 30,000 paying visitors walking through the doors.

In contrast, the last New York World of Amiga show only had 18,000 visitors. One reason for the recent success by the Aussies may have been the fact that this show marked the debut of the CDTV system in Australia.

Talking of which, what is happening with the CDTV? Chatting with Neil Fletcher of the European Multimedia Centre in London (01-97-7731) recently, I discovered that Commodore UK is working quietly on the CDTV, with a major push planned this Autumn.

The EMC is involved, since it dedicated to providing multi-media computing, a category which the Amiga CDTV fits neatly into. Watch this space.

colours, printers, modems, etc.

What makes the ECP different says Atari US, is that it loads as individual CPX program modules as it needs them. This cuts down on the amount of memory required for each different function.

This enables users to customise the ECP for their own use. Several versions of the ECP can be placed on disk, for use in different situations. For instance, where RAM is tight, a bare bones ECP can be loaded. When running a simple program, the SE ECP suite of software – essentially a Borland Sidekick range on the ST – can be loaded.

So when will we see the ECP in the UK? Sources suggest later this year. If the machines, take an entire disk



\* Interest in the CDTV may explain the success of the World of Amiga show in Sydney, Australia, which attracted some 30,000 people. Meanwhile, back in Pommersland, a major push for the CDTV is expected this Autumn.



• Atari's new control panel (ECP) works with both the TT (above) and the STE

around your favourite online system or BBC. If the system has an Atari slot, chances are that you'll be able to download the new ECP from it.

## Z-KEYS ADAPTOR FOR PC

Zuber Interdata has announced an adaptor for the ST – it's called Z-keys and enables almost any PC keyboard to be used with almost any Atari ST.

The \$99.95 adaptor is said to be relatively easy to fit, and plugs in under the 520 or 1040 ST's existing keyboard, taking a trailing keyboard adaptor port. The PC keyboard can then be plugged in as usual. If you have a Mega ST or STE, a further extender cable is needed – this costs \$20 to the full price.

While it is fair to say that the US marketplace has a number of keyboard adapters for the ST, this is the first one that let's come across that allows your own choice of PC keyboard to be used. So when's a version coming out for the Commodore Amiga then? Soon, the company says. Contact Zuber Interdata Inc, 32430 Paramount Boulevard, Lakewood, CA 90712, United States. Tel: 0101-213-408-6712.

## ATARI PORTFOLIO FORUM DEBUT

At last, the Atari Portfolio has its own circle on the Commodore on-line information service. The area, which opened at the end of July, is called the Portfolio Forum, and includes interactive newsgroup and a growing number of program files for the increasingly popular Atari pocket-book PC.

The main topic at the time of writing seems to be how to maximise data storage on the Portfolio. Several programs available for download help users make the most of the RAM, and RAM cards they have. If you have a modem, the Commodore Palmtop Forum is well worth checking out.

Further details of Commodore on 0800 209458 (voice).

## TOASTER OF THE TOWN

Nowtek, the developers of the Video Toaster for the Amiga, has provided version 2.0 of the driver software for the added graphics unit. First reports suggest that the software greatly enhances the capabilities of the unit. Nowtek's Video Toaster is actually a video controller board for the Amiga that allows the computer to simulate professional quality video effects. With version 2.0 of its software, Nowtek has added several new transitional effects to its software, including animated effects such as tuning gears and disco effects such as smoke and clouds.

Nowtek is shipping the Video Toaster workstation in two versions – version 1.0, at \$3,995, comes with an Amiga 2000 equipped with 5MB of RAM and a 50MB hard drive. Version 2.0, meanwhile, costs \$5,995, and comes with an Amiga 486 with a 504KHz 68030 microprocessor and matrix co-processor, along with 5MB of RAM and a 100MB hard drive.

Contact: Nowtek, 215 SE Eighth Street, Topolka, KS 66603, United States. Tel: 0101-913-354-1145. ■



## PROGRAMMING

# FULLY EQUIPPED

**Mary Branscombe reports on CASE tools for single users, cut price utilities, GFA-BASIC for Windows, and protecting your programs from nosy users**

**C**ASE tools (that's Computer Aided Software Engineering) can make programming a whole lot easier, but most CASE tools are designed for groups of programmers working on a network of workstations - and they're usually very expensive to boot, often costing \$8,000 and upwards.

Personal-SelectSSADM from Select Software is considerably cheaper than that, although it's still quite pricey at \$495. It's a single-user CASE tool for the PC, because not everyone writes their programs in a group.

Personel-Select/SSADM supports version 3 (as well as the newly agreed version 4) of SSADM - the Structured Software Analysis and Design Methodology which is used in government defence projects.

■ states the design for your program and uses techniques from knowledge-based systems to check that the code you write later actually matches up with your original design for the program. Contact Select Software at 0242 295553.

## LOW COST NISOFT

HiSoft is reducing the prices of current versions of DevpacST 2, BASIC version 1 and the Harlequin utilities, all for the Atari ST and STE to £29.95 each, in order to clear stocks before they release new versions of the products.

The Devpac 68000 assembler/disassembler is reduced from £99.95. Version 3 of Devpac is due for release in September this year with a new editor, an improved debugger and a faster

assembler with more switches. It will cost £16.95 and upgrades will be £34.95.

BASIC Version 2 should be out soon for £79.95, with a multi-window editor, a debugger and a high-level GEM toolkit.

A new version of HighSpeed Pascal follows not on the heels of the original release. Version 1.13 of the compiler includes an inline 6800 assembler for incorporating assembly language and support for a 68001 math co-processor. Details from HGSoft on (0625) 716181.

## DOWN TO BASICS

Another reason of BASIC for developing Windows applications - GFA-BASIC Windows includes everything you need to write Windows applications so you won't need the Microsoft Software Developers Kit. You can access over 500 Windows System calls and use the Clipboard, Dynamic Data Exchange between Windows applications and Dynamic Link Libraries that make code available to different programs.

GFA-BASIC Windows is syntax compatible with GFA-BASIC for MS-DOS, Amiga and ST and it costs £299. Talk to GFA on 0734 794941.

## PROTECT YOUR CODE

If you don't want other users to copy your programs or you want to put out an evaluation version that can only **RE** run a few times, you need Everkey II. The Everkey II plugs into the parallel port on a PC and protects any EXE or COM file. Your original code can't be disassembled either.

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**NOW WE  
ARE SIX**

To help you look through your files, Felen's on-line browser, and the Advisor on-line help system is very welcome - no more sifting through enormous manuals and you can even add your own help topics to the system.

The assembler itself has two new datatypes, `union` and `typedef`, for declaring your own types. Ten high-level constructs like `IFDEF` and `UNTIL` are now connected directly into tests on registers and the associated jump labels, which is one of the features that makes the assembler so much faster than before. The `org` method of assembly also accepts times, etc.

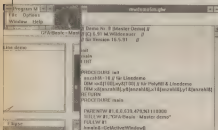
C programmers who use some assembler—and not vice versa—will like MAC68K because the HPMC program included converts C header files to assembler include files, so you can use just one header and convert to the relevant format. That's one less tedious job to do yourself.

The new **PROC** command makes it easier to call external procedures, written in any high-level language, making sure that the order of parameters on the stack is correct for that language.

As well as making your code faster, NASM 6 makes it more compact. All the initialisation required for a DOS startup sequence is in the `STARTUP` command, which cuts out a good deal of code and there's a corresponding `END` command as well.

MASW 6 costs £105 from Microsoft on 0734 384422.

**OVER TO YOU**



- **GFA-BASIC** for Windows has powerful graphics functions and dispenses with the need for the Microsoft Software Developers Kit. It also gives you access to over 500 Windows System calls.

## ALL ABOUT AMIGA GRAPHICS

*Aspice Programmer's Handbook* • Eugene F. Mortimore • ISBN 0-89603-367-4 • Pp. xxviii • \$24.95

This is a reference manual covering the Amiga RDM kernel facilities for graphics and animation. Just opening the front cover gives you a good idea of its no-nonsense approach. Instead of credits or adverts for other books by the author, the first and last two pages list the books are examined with an index to a selection of the functions and macros covered in the book, complete with parameters and statistics to mark which are macros and which return a value.

This is a reference book rather than a programming guide and you could use it with any compiled Amiga language: from assembly language or C to Pascal. Because it's not language specific, there is very little code in the book. It's functional rather than illustrative, giving you programming templates for all the Amiga's video display modes. If you want more code, four C programs are available on a separate disk.

+ *Amiga Programmer's Handbook* - everything you need to know about Amiga graphics from gadgets to virtual sprites.



Full control Amiga graphics - the Exec library, the Layers library, the Intuition library, the Icon library and, of course, *Graphics*. Shows itself.

As well as giving you the structure and explaining the syntax, there's a full discussion of how each function works and what you can do with it. If you want to see the Amiga's graphics capabilities, the *Amiga Programmer's Handbook* shows you everything that's on offer.

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| Card + 170 Meg hard drive         | £787.95 |

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| Powerplay Cruiser     | £9.95  |

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## TECH TIPS

Keith Pomfret says Kindwords can work, ties a printer ribbon round an old Juki; links up with a computer downrider and tackles a Demon model

## Partition bugs

Could you help me with a wee problem or two? Problem one is that I am an Amiga user running an AS50 hard disk and a KCS PC Power Board. The hard disk is partitioned 10Mb AmigaDOS and 10Mb MS-DOS. The problem is that from disk or hard disk the Amiga returns the error: 'Bad 6 is not a DOS disk'. Is this curable?

Also, is it possible to slow an Amiga down to 50 baud so that it could accept Murray Code on a Teletypewriter? I bet you've never been asked that question before.

Joe Watling, Sutton

WHAT KINDWORDS is doing is reminding that the IBM partition on the AS50 is there and that it is not AmigaDOS compatible. You don't mention whether Kindwords fails to work after the error message comes up, so I just assume to be an inconvenience more than anything else.

As far as being it goes, try looking in the KCS manual to see if there is a mounting command that can be put in the startup-sequence to make the Amiga recognise the PC partition.

As for your second question, it is indeed possible to slow the Amiga down to 50 baud. Because you are reading data from the teletypewriter I presume you would be looking the Amiga up to it through the serial port.

The Amiga serial port can read data at speeds as slow as 50 baud. A communications program could be used for the job, but 50 baud might be a bit too slow for your settings.

A better bet might be to contact an amateur radio club that uses computers. One such club is the Connemara Radio Users Group, 60 Irvine Drive, North Clippens, Linwood, Paisley. It might be

able to help you get the Amiga to understand the Murray Code as well.

## Non-DOS message

I have an Amstrad PC288 with a 520Mb hard drive. Although the computer is perfectly alright and the hard drive doesn't seem to have any problems, when I CHKDSK on the hard drive it comes up with: 'Probable Non-DOS Disk. Continue Y/N'.

If I press 'Y' it works perfectly and checks the disk, but it didn't use to do it. It has only started recently and I am concerned there is a problem with my hard disk and I wish to resolve it before something goes seriously wrong.

D Glover, Farnham

FIRSTLY, it might be a good idea to check if your hard disk is partitioned into C1 and D1 drives. If the message comes up on both partitions then there could be something physically wrong with the drive and it would be worth having it checked out by a technician.

If it only comes up on one partition or there is only a C1 drive then there could be some corruption on part of the disk. The fact that the command now checks the disk whereas it didn't before may mean that it has cleaned up the disk itself. Keep an eye on what it does though.

Just for safety I might be worth checking the disk for viruses, as this is the sort of thing they might do. This isn't just scaremongering as there is a possibility the drive could have been infected by a rogue disk. Anyway, it's always a good idea to check both floppy and hard disks for viruses on a regular basis. Virus checkers are available from most Public Domain libraries.

## Torch lighted

I am a student doing a City & Guilds AS Level 3 Certificate in Applications Programming in Cobol with Kalamassoo.

I have just recently bought a Torch Graduate (remember this?) model 4000Z for my BBC. Basically it is an 8088, 256K RAM, 2 x 386K 5.25-inch Eppan drives, integral PSU and two 8-bit IBM slots. I am running DOS 3.1 on it and it runs via the Beeb using its display and keyboard.

However, I did not receive any of the original Torch manuals nor the original software for it. Do you know anyone who uses one or a Torch user's club?

Also, what is the maximum memory I can upgrade it to? Can I directly attach an IBM 102 key XT keyboard, 5-pin din socket, to it or via some unit, as not all the keys on the Beeb act as those on an IBM.

What are its limitations? Will it run all IBM software eg. Windows, Deserve, DR-DOS 5, PageMaker, Corel DRAW? Can I expand it? What is extended vs expanded memory? What are accelerator boards? Can I upgrade the 8088 or should I get another motherboard?

I am quite fond of my Beeb and do not want to sell it. However, your suggestions/advice would be most grateful. Any help of any sort would be appreciated. Perhaps you could print my phone number so someone reading may help: 321-7342405. I have 3 fixed other places, but ill not state.

Wasson Hag, Birmingham

AS THE TORCH GRADUATE stands 256K was fine for the most basic of tasks when it came out (somewhere in the mid 80s). Now, however, 540K is regarded as the minimum amount of RAM in all PCs and even this is a bit limiting. I don't know whether the Torch can be expanded any further, but I would say it probably could be, although not further than 540K.

Unless there is a 5-pin din socket, I doubt whether a keyboard could be automatically connected to your machine. But again, it could be possible. The problem would be getting the computer to recognise all 102 keys - if the BBC hardware can't do itself, then an external keyboard won't just replicate the Beeb's own keys and functions.

When the Torch came out, an 8088 processor with 256K was, as I mentioned earlier, an acceptable and usable

hardware configuration. Nowadays though, an 80286 is almost regarded as the minimum set-up to have.

Applications such as Windows, Deserve and DR-DOS would have problems running on an 8088 processor, as it is not powerful enough to handle operating systems for instance. That is, multi-tasking. It is possible to get Windows running on an 8088, but it really is sluggish and virtually unusable. And if you're thinking about running these with 256K then think again: 1Mb is more the amount you should be looking at.

There is some hope though. You could replace the 8088 with an NEC V20 or V30 processor which would increase the speed of the 8088 from a mere 4.7MHz to a more respectable 8 or 10MHz. Then applications such as Windows would be less sluggish, but you'd still have the memory problem.

An accelerator board could be used in one of the 8-bit sockets, presumably, but the cost of buying one could be almost as much as getting a separate low-end PC compatible. Then you could use the Beeb and the PC for the things that they were really made for.

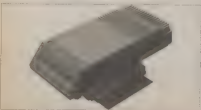
As for as user groups go which might be able to help, you could try Beebug, a BBC user group, by writing to: 117 Halford Road, St Albans. Here AL1 4JS. Or if I can't help, you could try the British Association of Computer Clubs to find a club that might be able to help. It can be reached at: Eric Y. Rhoyon, 14 Bron Y Glyn, Borelydd Arms, Carmarthen SA33 6US. Unfortunately we have no records of a Torch user group.

## Ribbons located

I am replying to your letter in issue 143 regarding the Juki 6100 Daisywheel Printer. Your reader, Mr Simon Haddleson has been trying to obtain ribbons for this printer.

Various makes of ribbon have been used by my printer for a number of years, but the one that seems to be around in the moment is quantity is IBM type 1209085. In fact, recently I picked up a dozen or so from a market stall for 50p each, which can't be bad.

However, there are three types in all as follows: multi-stroke, single-stroke and convertible. The multi-stroke one is the only one suitable for re-inking as the rest are a plastic type ribbon. Your reader will be able to obtain them from Diamond Computers, Manchester 061-237 3999 or



\* Hopefully, making the Amiga recognise an IBM partition on the AS50 hard drive shouldn't be an insurmountable problem



**Wasting Office Supplies.** They are a very common ribbon and were also used in quite a few typewriters.

I am hoping that one of your readers may be able to help me too! I am trying to obtain a manual for a Juki 6108. Juki seems to have vanished completely. I have not seen any of its products for years. Has it gone bust or has it been bought? Does anyone know? Perhaps someone may have a 'phone number. My address is 8, Levent House, Mill End Road, London E1 6LS.

Terry Martin, London

**THANKS FOR THE TIP.** Can anyone supply a manual? As for Juki, I'm not sure where it's gone.



## Worldly transfers

Two problems for you and your readers.

First, how can I best get my computer and that of my brother in New Zealand to pass information to each other? We are both researching the history of our family and our separate databases are getting quite large. I have an Atari STE and he has a BBC Model B. Do you know of any programs which would enable us each to produce disks which the other's computer could read? Disk size is no problem as we both have 5.25-inch disk drives.

Someone has suggested that a program called BaseDOS would enable the disks to read from MS-DOS formatted disks and I have no problem turning my data into ASCII files and placing them on MS-DOS formatted disks. I assume BaseDOS would also allow the disks to write to MS-DOS formatted disks? Is this the method you would recommend and do you know where we can obtain a copy of BaseDOS?

Secondly, why does the beautiful artwork I produce on the

## Drive time

Would you please inform me as to whether it is possible to use either a PC double-sided disk drive or PC HD disk drive (with IBM module of course) as a second drive on my Atari STE, and also whether PC hard drives will work with it.

I am also considering the purchase of an Atari SM124 monitor. However, I am very unhappy with its appalling small size. Are there any larger alternatives at all to Atari's inadequate offering in the high resolution area? For example, can a VGA monitor (or similar) be made to work with an STE?

J. Spake, Feltham

THE STE's disk format is based on the same format of the PC so it should be possible to use either a 5.25 or 3.5-inch PC disk drive on an ST. The main thing is to get the details of the interface or cable from the drive as there will no doubt vary between products, and then match these up with the pins on the STE's external disk drive port. A couple of points to watch out for are whether the drives have their own power supply or not, as they may need more power than the STE can supply. Unfortunately the PC hard drive isn't compatible with the ST so you would probably be better off selling it and using the money to buy an Atari hard drive.

SM124 monitor came out slightly elongated when I print it out (Ah-Help) on my Sigma LC16 (the install printer option is set at 960) is there any way that I can get a more true-to-size print-out?

Dan Holland, Croydon

**CONVERTING THE DATA** to a PC formatted disk does seem to be the way to go. Because the databases would presumably produce files that carry headers etc. specific to the application, the data would have to be converted to ASCII to be used by the antipodean machine.

BaseDOS sounds as if it could do the job but I don't know where to get a copy of it from. Perhaps you could try a BBC users group.

An alternative method of transferring the data would be for you to send each other your own computer's disks, and then you both could transfer the data across using a null modem cable and a comma package. Or you could transfer the data to each other via the phone line using a modem, or upload it to a BBS. This would require a modem

though and the phone bill would be prohibitive, but it would be a faster way of doing things.

The printing problem could be the printer driver you are using. Star's LC-10 is capable of basic Epson emulation but you could try and get hold of a driver specifically for the printer. You could also try printing out through another type of printing program or an package.



## Modem mayhem

Some time ago I picked up a modem for the BBC Model B at a local radio and electronics rally. Unfortunately, it was without instructions or documentation of any kind.

The unit itself is a cream-coloured plastic box, with a red front on it bearing the name DEMON (presumably the manufacturer's) along with five green LEDs and three push switches. Three cables emerge from the back, namely mains,

telephone and RS-485. The associated software came on a ROM chip, which I am using on a ROM cartridge on a Master 128.

The unit doesn't seem to get any sense out of it, or the software. Therefore, I would be extremely grateful if anybody can give me any information which may help me to get the thing working! If somebody has an instruction manual for a unit such as mine, which they could let me have a photocopy of, that I would be most grateful to willing to pay any copyright/usage costs involved.

Incidentally, when I tried ringing the London phone number printed in the front of the unit, I got a very carrier tone! Not much good without a working modem!

Gareth Hughes, Croyd

**BECAUSE** the modem has three switches along the front that may indicate that it isn't an automatic modem. It's more a socket at the back of the modem for a telephone? If it is, then you might be able to plug a phone in, dial the BBS number on the phone itself, then press an on-line button on the modem to get a connection.

Of course, this depends on whether or not the computer and the modem are communicating to each other in the first place. When everything is connected and the software is running, do any of the LEDs flash or flicker when you press a key. If they don't then the cable may be at fault.

Other than those basic tips I can't help much further. Give Modem Marketing a call as it markets the Demon modems. Modem Marketing can be reached on 0790 470647. ■

## PROBLEMS?

Write to: **TECHNICAL PROBLEMS**, c/o Tom Tom Future Publishing, Inc., Computer Express, 30 Marlborough Street, Boston, MA 02101.

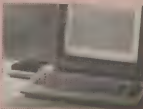


## Got those 1541 blues?

in the Express office this week we got a call from a distressed reader who couldn't get her Commodore 64's 1541 disk drive to write to any disks. It could read the disks alright, but there was no way it could format or write data to them.

To try and fix the problem the reader replaced several chips in the 1541, including the 6562 processor, and the CIA chips, but to no avail. Obviously she had gone to a lot of expense to try and get things working properly, but now she's really stumped.

The only other option seems to be to see if the read/write head is out of alignment or needs cleaning. In order to align the head it would be best to take it to a technician. It is possible to do it oneself but it is quite a delicate operation. Cleaning the head involves removing the case of the drive and lightly using a drop of alcohol to remove the dirt that will no doubt be there. Somehow I think the problem is more than just a dirty head but you never know.



• Got a Commodore 64 which can't read disks? Perhaps the read/write head is out of alignment or needs cleaning













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## PUBLIC DOMAIN

## THE PD COLUMN

James Leach powers in with a vibrant new PD Column - this week he reports on a speedy package to add up your accounts, fun games for kids, gonk banking and much, much more.

Databases, accounts and home business packages are all well and good, but they can be costly. If you're looking for something to handle your muddled affairs, PD is a great place to start. Stewart PD company Amiganuts has released **Amibase Professional II**. As its name suggests, this is a powerful database capable of handling hundreds of entries and incorporates a sophisticated find system that allows you to retrieve data easily and rapidly.

The first time you use the program, you set up the fields how you want, tailoring their number, each individual length and their position until you're happy. Then single keystrokes take you into the various modes: browse, add files, delete files or change files.

It's possible to search for anything in any of the fields, and parts of words are recognised. For example, searching in a name file for 'an' will find everybody with a 'an' in their name: be it at the start, in the middle or at the end. This flexibility is

the great strength of Amibase and sets it apart from the simpler card files usually seen as PD.

It's great speed is an added bonus. Amiganuts warns that Amibase isn't really intended for the first-time database user, but the documentation included is clear and easy to follow, so with a bit of experimentation, anyone should get to grips with it without too many problems. But just in case, Amiganuts also has a friendly and knowledgeable voice on the end of the telephone to help out those technically adrift in the world of files, fields and fast-finds.

### PICTURES AT AN EXHIBITION

Welsh word Pictureware has put out another selection of loss images for the Amiga. It only works with HAM displays and therefore shows high quality screens with 4096 colours that will far take your breath away.

Many demos have nice graphics,



• If you've got it, flaunt it with a package from Pictureware

but one of the good things about Pictureware's is that there isn't a jangle tune playing, saving up lots of memory and making it difficult to fiddle around with the pictures themselves. Still the fun of good graphics should be enough while you can get up to with them and Pictureware's are certainly worth a peek. If only to expand the horizons of your own graphical genius.

### PUBLISH AND BE DAMNED

If you're a budding magazine or fanzine producer, **Pagestream** from Caledonia PD, might be right up your street. It's a desktop publishing package which allows you to manipulate words and pictures with an impressive degree of accuracy and a fair bit of speed. It runs from the WIMP environment (that's Windows, Icons, Mouse and Pointers) so it's easy enough to get to grips with.

DTP can be a complex subject, but **Pagestream** makes things as painless as possible, and in no time you'll be dropping pieces from any of the major ST art packages into your text. A variety of fonts is supplied and the shape and size of the words are easily manipulated. You can also bolden or italicise, using keyboard shortcuts.

One negative of RAM is recommended because the program itself takes up a lot of space, but if you

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**PLEASE NOTE THAT ALL PROGRAMS LISTED ABOVE ARE NOT PUBLIC DOMAIN**

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## PUBLIC DOMAIN

divide up your work into conveniently-sized chunks in a page or two in length, everything runs smoothly and, for a DTP program, quickly.

## TANKS FOR THE MEMORY

Don't be misled by the title of *Battle Zone* from ST PD publishers LAPD. It's not that noisy old wire-frame tank game, but a rather more airborne shoot 'em up. You whizz over the surface of a planet dazed in side view, and blast the smoke-like aliens which wrap up along the way. It's colourful and it's very, very fast. Meanwhile, an excellent quality soundtrack plays in the background. The combination of speedy gameplay and demo-quality sound makes it quite an experience, and if you're into mindless blasting, *Battle Zone* could be for you.

## BANDS ON THE RUN

There seems to be rather a run on ST popular music games recently. Everyone's partial to having their music knowledge tested occasionally, but the concerted effort by various PD companies could well breed a generation of Atari-using Mike Read look-alikes (or worse still, Paul Gambaccini).

The first is now *Baselt*, which is very specific about the questions it asks. *Disk MPD2* contains in-depth queries on Kate Bush, Phil Collins, Don Spinks and Pink Floyd. *Baselt* operates a system where you need a blank disk (or two, if you're single-sided) and CT, to receive anything in its catalogue.



• *Ludo*. Not hard, not spectacular, but fun nevertheless (if you're a child)

In total contrast, *Nightshift PD* has produced a zaps quiz called *Pop-eyed* which features a minor road accident. The story unfolds screen by screen, as you get more in the questions right. It's a weird idea, but things hardly return to normality when you see a couple of scantily clad girls (the offending drivers).



• There he is! Get him! Get him! *Bank the Gunk* is certainly insidious

arguing about whose fault it was. The humour with which *Pop-eyed* is done makes up for its lack of taste and the questions are nice and tough, but it's still one for when the kids are in bed.

## PSEUDO LUDO

If the secret sight of curvy wenches isn't your cup of tea, good for you. You might therefore be interested in the completely inoffensive games range from Trust PD (which also

caters for the ST). The first one to cross my path is *Ludo*. It's simply, well, *Ludo*. There is a screen representation of the board and each player must get his or her counter to the middle. Yes, as you might have guessed, this one is definitely for the children. The game is very easy to use, has bright colours and a plethora of sounds, so I should keep them quiet for the duration of *Neighbours* at least.

One final game which is destined for children, but which is strangely addictive for people of all ages is *Bank the Gunk* from NBS PD. Quite simply, as you do is in the gunk on the head with a hammer whenever they stick peep out of their holes. But don't let the dynamics that appears from time to time lull you. Play it if you dare! ■

## THE ADDRESSES THAT MATTER

California PDL (for the ST) is at: 250 Oldtown Road, Hilson, Inverness IV2 4PT

LAPD (ST specialists) can be contacted at: Lee Lane, Langley, Hemet, Derbyshire DE3 7HN

For Amigacons go to: 150 Dale Valley Road, Hollybush, Southampton SO1 6GX

Further impressive Amiga graphics can be spotted at: Picturesave, Aspect House, 21 Brynelli Crescent, Brynelli, Swansea SA2 6AL

ST games for the children can be found at: Trust PD, 18 The Park, Southwam, Halifax HD3 9QY

And the game for children's grownups is available on ST from: Highest PD, 8, Sertain Rd, Beccleside, Sturford ST16 5JJ

Bank the Gunk (and much more) can be contacted from: NBS, 1322 Sunnylee Road, Newport, Isle of Wight PO16 5UL

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## FALLING IN LOVE

Some of our older readers may remember the heyday of the 8-bit. Way back then, when dinosaurs (the VIC-20, the ZX81, the Electron) still walked the Earth, there was a game called *Need For Wheels*, an isometric 3D puzzle-arcade-adventure in the mould of the legendary Knight Lore. An absolutely wonderful piece of software, it took its genre to the limits, and quickly became one of the most played games ever.

Since the rise to prominence of the 16-bits, there have been rumours of an impending conversion, but only now has it finally happened. Ocean's programmers have finally almost completed the ST and Amiga ports, and the Manchester giant is, admirably, releasing the game straight on to its

**TOKU**

**Keywords:** child sexual abuse; disclosure; help-seeking; mental health

**AMIGA**

the 1990s, the number of people who have been infected with HIV has increased significantly. In the United States, the number of people living with HIV has increased from about 100,000 in 1985 to over 1 million in 2000. In the United Kingdom, the number of people living with HIV has increased from about 10,000 in 1985 to over 100,000 in 2000. In the United States, the number of people who have died from AIDS has increased from about 10,000 in 1985 to over 100,000 in 2000. In the United Kingdom, the number of people who have died from AIDS has increased from about 1,000 in 1985 to over 10,000 in 2000. The increase in the number of people living with HIV and the increase in the number of people who have died from AIDS are both a result of the increase in the number of people who are infected with HIV. The increase in the number of people who are infected with HIV is a result of the increase in the number of people who are at risk of infection. The increase in the number of people who are at risk of infection is a result of the increase in the number of people who are using intravenous drugs, the number of people who are having unprotected sex, and the number of people who are sharing needles. The increase in the number of people who are using intravenous drugs, the number of people who are having unprotected sex, and the number of people who are sharing needles is a result of the increase in the number of people who are using intravenous drugs, the number of people who are having unprotected sex, and the number of people who are sharing needles. The increase in the number of people who are using intravenous drugs, the number of people who are having unprotected sex, and the number of people who are sharing needles is a result of the increase in the number of people who are using intravenous drugs, the number of people who are having unprotected sex, and the number of people who are sharing needles.

## 5

What's a *data* object? Basically, you want to be able to store a Text type that, that's all right, can't you do the magic word for that value. If you hit the `value` on the `intersequence`, then you get `POOR (OK)`. Then you should find that you're done with the word with `intersequence`, you should find the `OK`.



## \* Hand Over Heels

- simply one of the best games you're likely to play

\$7.99 Hit Squad label.

Nothing much has changed from the original versions, the graphics, sound and map layouts are all the same as before, and my sentimental old heart would like to think that *Read Over Heels* is set to enjoy a whole new lease of life. As 16-bit gamers discover what things used to be like in the days when you couldn't bury tedious games beneath a mountain of pretty graphics and samples, in order to make them sell.

Much more than just another nostalgia trip, *Head Over Heels* is simply one of the best games you're ever likely to play. Start camping outside your favourite software shop today.

## ALL TOGETHER NOW

Ilirij, it must have been at least six weeks since Domask released a

compilation. Surely it's time for another couple? And sure enough, a quick perusal at the release schedules show that right about now you should be able to find on the shelves not one, not three, but two collections of "classics" all bunged into one box for your composite gaming pleasure.

Grandstand is a sports set comprising Pro Tennis Tour, Leaderboard and Continental Circus, with Gazza's Super Soccer taking the filler position. Virtual Worlds contains three re-released Freescape games (Drifter, Total Eclipse and Castle Master) along with one unaltered Freescape game, the *Castle Master*.

**follow-up** **The Crypt.** Prices are £29.99 for the 16-bit packs and £14.99 for the 8-bit versions.

**HERE IT COMES AGAIN**

"I know, dear hearts, I simply couldn't count the number of people who've come up to me and said, 'Stuart, I'm completely bored with playing the same tedious old 'shoot 'em up/beat 'em up/light 'em games week in, week out. Why can't software houses release something just a little bit different every once in a while?'"

That's probably only because I can't count past five, but in any case what I should say to people like that is 'Ah, but

## TOP 10 ALL FORMATS CHART

| Rank | Artist             | Album            | Label          |
|------|--------------------|------------------|----------------|
| 1    | Man Under Europe   | Kristoffs        | SP CD AM ST AQ |
| 2    | Hero Quest         | Greenin Graphics | SP CD AM ST AQ |
| 3    | Rainbow Collection | Ocean            | SP AM ST AQ    |
| 4    | Dizzy Collection   | Code Masters     | SP CD AM       |
| 5    | Teacup Mutant Hero | Toronto          | SP CD AM ST AQ |
| 6    | F15 Strike Eagle 2 | Microphone       | ST AQ          |
| 7    | Monkey Island      | US Gold          | ST AQ          |
| 8    | Shadow Dancer      | US Gold          | SP CD AM ST AQ |
| 9    | Big Box            | Beas Jolly       | SP CD AM ST AQ |
| 10   | Supremacy          | Virgin           | CD ST AQ       |

ST = Atari ST A5 - Commodore Ninja PC = IBM PC or compatible SP = Spectrum  
 CO = Commodore 64 and Amstrad CO = Orson

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## BEG, BORROW AND BURN

## BEG

MEDIA LO-MANTA - IMAGEWORKS



"I don't think it's nice, you laughin'..."

Described by some as "Populous with laughs", *Mega-lo-Mania* manages to rise above both its obvious origins and the ridiculous hypochondria of its title to prove a maddeningly addictive god sim which doesn't have to take itself seriously to be a perfectly great game. Extremely tough, but enormously rewarding, *Mega-lo-Mania* treads the fine line between confusion and frustration perfectly.

## BORROW

**THE SIMPSONS - OCEAN**  
OK, so you don't actually have much option with this one, as the only other way of getting a copy is to go and fork out £400 on the

new Amiga Cartoon Classics pack. But if you've got a new Amiga-owning chum, you can have some pretty excellent fun with this surprisingly good Bart licence. Ocean has pulled its socks up a bit after a recent poor run and produced a game which, while by no means stunning, is just a little bit more intelligent and entertaining than most of us had been expecting.



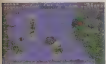
‘Oh, aliens, up yours!’

**BURN**

**METAL MUTANT • SELMA'S PALACE**  
Everybody likes it, I don't care. This tedious scrolling beat-'up-is slow, repetitive, unimaginative, incredibly shallow, unpleasant to control and generally unimpressive at best in every area. Screen after screen of the same old yawn-inducing baddy-thumping action sends you into a stupor quicker than morning Pezmo, and if you're the kind of person who's likely to buy it, please stop now. Or preferably just kill yourself.

they have. Why, you only have to look at some of the great re-releases, currently resting on the shelves of your local software emporium to see that it's true. At the point they inevitably say, "Tell me more, Blazzer," which is why, to save myself some time, I've decided that this swan is best taking a retrospective kind of look at some games which are just a little bit... OFF THE WALL.

**TOOBY** • Rospay • £7.99 16-bits  
**The Hit Squad** • £3.99 8-bits



**Too By** brings you the dubious pleasure of sailing down an alligator-infested river in an old life star tube with your backside banging out of the hole in the middle. The pneumatic nature of your transport makes you prone to all sorts of inflatable-rupturing, danger, including sharp rocks and fishermen's hooks, which you have to avoid by paddling away or throwing Coke tins at them.

So far so pleasantly wacky, but when you come to the gameplay it all falls apart quicker than a weekly Lada.

Control is sluggish, imprecise and

unintuitive and the different levels change only in terms of scenery. You don't really feel that you've got much influence over the watery gung-on, and despite being (as all fansail) a pretty decent conversion of the coin-op in most respects, **Too By** was simply never much of a game in the first place.

**NORTH & SOUTH** • Action Station • £7.99 16-bits.

The French wargame is a very rare breed on these shores ("What shores?" Oh, a little vodka and Diambro for me, thanks), indeed as far as I know it's a breed with only one member.

**North & South** is a game set in the American Civil War and lets you control either side in an attempt to capture the whole country, by means of simplistic board game style bidding, supplemented by optional arcade sequences.

The major strong point of the game is the beautiful, lively presentation, and indeed if you choose not to bother with the arcade sub-games the gameplay is very thin indeed. But all the same this is a last-though-and-entertaining game that'll bring more than the odd chuckle to the most weary of gamers' tables.

**ZANY GOLF** • Electronic Arts • £9.99 16-bits only

This is more like it, though. Crazy golf has always been one of the more inventive pseudo-sports around, and this computer version does a surprisingly good job of capturing the essential feel of

the real thing. In fact, stick a big fan beside you while you're playing and get a friend to chuck some sand in its general direction, and you'll be hard pushed to tell that you're not really on the pommelée at Southport at all.

**Zany Golf** also takes advantage of the medium to produce holes which would be impossible in real life, yet it perfectly uses the spirit of the genuine article. Play - for up to four players - is intuitive and slick, and apart from having a few more holes than the rather limited nine supplied, you couldn't really ask for more from this game.

More enjoyable as a one-player game than most others off the PC, **Zany Golf** nonetheless really comes into its own when you get a few pals in, and in that mode it's a classic.

## HATSTAND CORNER

Liverpool software giant Psychosis suffered a disappointment earlier this year when their Amiga blockbuster **Shadow Of The Beast II** was banned in 23 American states after pressure from the powerful fundamentalist lobby who demanded that it be withdrawn lest its 'Satanic overtones' corrupted the nation's impressionable youth. When asked for a reaction, a Psychosis spokesman denied the accusations vehemently, adding: "anyway, they're dead & dog", but to no avail, and the game subsequently flopped.

TOP 10

**ALL FORMATS BUDGET**

|                          |              |                   |
|--------------------------|--------------|-------------------|
| 1. <b>Snapper</b>        | Amiga/Intend | SP 10.00 AM ST AG |
| 2. <b>Double Dragon</b>  | Intend       | SP 10.00 AM ST AG |
| 3. <b>Double Dragon</b>  | CodeMaster   | SP 10.00 AM       |
| 4. <b>Double Dragon</b>  | CodeMaster   | SP 10.00 AM ST AG |
| 5. <b>Double Dragon</b>  | CodeMaster   | ST AG PC          |
| 6. <b>Double Dragon</b>  | Intend       | SP 10.00 AM ST AG |
| 7. <b>Double Dragon</b>  | Intend       | ST AG             |
| 8. <b>Double Dragon</b>  | Intend       | SP 10.00 AM ST AG |
| 9. <b>Double Dragon</b>  | CodeMaster   | SP 10.00 AM       |
| 10. <b>Double Dragon</b> | CodeMaster   | SP 10.00 AM ST AG |

## NEBULUS 2 (POGO-A-GO-GO) 21st Century Entertainment • Amiga, £1 • £25.95

The original **Nebulus** was one of the best games ever to grace any computer. It has appeared on the Spectrum, C64, Amstrad, Amiga, ST, Game Boy and Nintendo NES, and was received everywhere with critical delight.

The simple climb up/down nature of the tower-ascending gameplay, coupled with the gorgeous rotation scrolling, subtle characters, and lovely presentation touches ensured a monstrously addictive game which created armies of devoted fans everywhere it went.

Now the resurrected **Nebulus 2** (or, I mean, the completely reworked and very well-connected-to-the-software-house which cranked-out-a-few-months-ago-with-Nintendo-64 21st Century Entertainment label) has come up with a sequel, and it looks as badly that I fear the summer recess is the only thing preventing quarters being asked in Parliament about it.

So, how have they done it? How on Earth have they managed to turn such a magnificent classic into such a complete hound? At first glance, the original format doesn't seem to have been tampered with too much, the old towers-and-platforms-and-baddies structure still seems to be intact, but with the addition of prettier graphics, new features, improved presentation and power-ups. Peer a little closer, though, and you find that the incredibly competitive gameplay of yore has been downgraded under a weight of unnecessary new baddies, so that nothing of what made **Nebulus** so great in the first place remains.

The towers which were much of the obstacle to progress in the first game are now just somewhere to stick all the new enemies. They're miles too high, too, the essence of addictions is the belief that the completion



of a level is just within your grasp but in **Nebulus 2**, you're likely to get bored before you've got very excited at nearing the top of even the first tower, and you don't need me to tell you that that's not a recipe for lasting entertainment.

The new features are straight out of the Lazy Programmer's Guide To Sequels book, ranging from the pointless (booked down with the key right beside them), to the plain-ol' livable platforms

which don't appear until you walk or to them, leaving you to spend half the game specifically walking into dead space and plummeting back down the screen to the bits you've trinkled past (14 times already), to the absolutely absurd (the second level has you actually descending a tower, falling upwards when you get hit by an enemy! I mean, have these people got the faintest idea of what they're doing? They're missing the point by such a distance you have to wonder if they're actually aiming at the same target as the

rest of us.

Even the little sub-games between towers are dull, lacking in character and life, and going on far too long into the bargain. And the power-ups! The power-ups are just SO awful! I can hardly bring myself to write about them without screaming. And as an example, there are little magnets which pull you up to a higher platform, except they don't work even there! Excuse me, I'm going to have to go for a lie down in a darkened room for a day or two.

OK, having calmed down a bit, I can tell you that **Nebulus 2** is nowhere close to tolerable if you treat it as a puzzle game rather than a **Nebulus** game, and though it carries none of the style, elegance, playability or competitiveness, the presentation is quite good.

If you were a fan of the original though, this is a disgrace bordering on the blasphemous. Stay well clear.



I don't know how you're looking so happy for, pal. **Nebulus 2** isn't anything to smile about, that's for damn sure as mustard.



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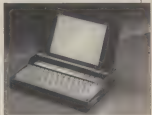


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## PHILIPS PCL 203

Notebook computers may be just as powerful as desktop machines, but how much should their added portability cost?

Tim Howell slides the Philips PCL 203 into his briefcase to find out if this new notebook offers good value for money



▲ Power package — Philip's PCL 203 Notebook can last for over three hours on its rechargeable battery

including when serial ports are active, setting the clock, and determining how long the machine should wait before it shuts down. This not only makes it easy to customise the settings, but it also shows how the machine is set up, making it easier to locate problems should they occur.

## MONEY MATTERS

The Philips PCL 203 really for £1,600 which is a large sum of money. Compared to other machines on the market — both laptops and notebooks — this price puts it near the top end of the market, making it even more expensive than machines equipped with 386SX processors (such as the Neat, reviewed in Express 141). The PCL 203 is made by a company with a good reputation, but to pay such a premium for a brand name on a less powerful machine sells for some careful consideration. Individual dealers might sell the PCL 203 for less than its recommended price, but then they'd do the same for other machines.

All in all, the Philips PCL 203 is an attractive machine which offers almost all the features of a desktop machine in a package smaller than an A4 page. These come at a price, though, and potential purchasers would do well to shop around if they are interested in the machine. ■

## MAKE A NOTE OF IT

## FOR

- ▲ Small size
- ▲ Well-designed
- ▲ Good power-saving features
- ▲ Useful software bundled

## AGAINST

- ▼ Heavy for its size
- ▼ Quite expensive compared to others

VALUE: Good COST: £1,600

COMPETITION: Toshiba, Ness and Sharp

# SMALL IS BEAUTIFUL

**PRODUCT:** Philips PCL 203 Notebook  
**COMPATIBILITY:** PC  
**FROM:** Philips  
**CONTACT:** 081-689 2166

There is a subtle difference between laptop and notebook computers. While they are both portable machines, notebooks are smaller yet manage to have just as many features as their larger cousins. Basically if a machine can fit inside a briefcase, it is regarded as a notebook. A laptop, on the other hand, would be carried on its own.

Philips' PCL 203 is an AT-compatible notebook, equipped with a 12MHz 80286 processor and 1Mb of RAM. The memory can be expanded to 8Mb on board which is quite a feat for a computer this small.

And Philips' notebook is very smart. It measures only 220 by 280 by 52 millimetres, which is less than the size of an A4 page. In this space a lot of hardware has been included. To start with, there is a 1.44Mb 5.25-inch floppy drive and a 30Mb hard drive.

Also, there are serial and parallel ports, can plugs for a PS/2 mouse and an external keyboard, as well as a video port for connecting the machine to an external monitor. The serial port is only a 9-pin connector instead of the more standard 25-pin, so a different cable or an adapter is needed to use peripherals which have a 25-pin connector. A box can be connected to the machine to provide some XT or AT compatible slots.

## ON DISPLAY

There are numerous display options as the PCL 203 has a VGA jacket liquid crystal display (LCD) screen which can not only display VGA, but also MGA, Hercules, CGA and EGA graphics. The screen gives a clear and stable display in all sorts of lighting conditions, although, like other LCD screens, the speed of some games makes the display often become blurred.

The PCL 203's full-sized, tactile keyboard has 80 keys which can emulate the 101 or 102-key versions of larger desktop computers. It has an embedded numeric keypad which sits keys in the central part of the keyboard for numbers.

Usually, the keyboard also controls the hardware: other laptops and notebooks use standard knobs. By using the 'Fn' key the keyboard can adjust the brightness and contrast of the screen, or whether the machine is outputting to its own or an external monitor. While doing these functions with a keyboard is a bit of an inconvenience, it does mean that the settings can be changed accidentally.

## BATTERY RAM

One important feature which determines the usefulness of a portable computer is how long the battery lasts. The PCL 203 can last for over three hours on its rechargeable battery, which is a reasonable length of time compared to other machines. When the battery comes to the end of its charged life, the power light starts flashing and a regular beep is emitted as a warning that data should be saved.

To help conserve what power the machine does have there are a number of built-in features. If the hard drive hasn't been accessed for two minutes then it will shut itself down until it is accessed again. Also, the computer can be put in standby mode so if it isn't used for five minutes everything is shut down — the backlit screen is turned off and the two drives are put on standby until they are used again.

If you close the screen over the machine it carry it somewhere, for example, but forget to turn it off, then it will beep to remind you that it is still on. The 12MHz processor can also be slowed down to 6MHz to save battery power when processing power is not needed.

Recharging the battery back to full power takes around six hours. The device that charges the battery can also supply mains power to the notebook when it is not being used in a portable capacity.

## The memory can be expanded to 8Mb on board which is quite a feat for a computer this small

Another important consideration when choosing a portable machine is how much it weighs. For its size the PCL 203 weighs quite a bit, some three kilograms. This weight can be attributed to the notebook's case which is very thick and solid. A carrying case is supplied, but apart from protecting the machine it doesn't make it any easier to carry as it has no handle.

## BUNDLING ALONG

The Philips PCL 203 is bundled with a variety of software. MS-DOS version 4.01 and GW-BASIC are standard fare when it comes to bundled PC software, but Microsoft Works 2.0 and Fastway file transfer software are also included. The inclusion of Works means that the notebook can immediately be used for something useful. Works is an integrated software package which includes word processing, spreadsheet/database and communications facilities.

Software for setting up the machine is built-in. This is basically a menu screen that controls its functions.

## VITAL STATISTICS

|              |  |
|--------------|--|
| Processor:   | 12MHz 80286  |
| RAM:         | 1Mb standard, expandable to 8Mb  |
| Storage:     | 1.44Mb 5.25-in, 1.44Mb floppy drive, 30Mb hard drive (3.5 millisecond access time) |
| IO:          | 1 Serial, 1 Parallel, video, PS/2 mouse, external keyboard                         |
| Display:     | Monochrome VGA (640x480 pixels)  |
| Screen size: | 224x280mm  |
| Weight:      | 3kg  |
| Dimensions:  | 220x280x52mm   |

## COMPUTER FRAUD

## OF CORPORATE

The fact that computers are now such a prevalent part of everyday commerce means that, as with any other area of life, opportunities exist for dishonest activities. Within some areas of hacking, viruses and large scale bank frauds frequently make the headlines, but the task of computer crime is difficult to gauge. Part of the problem is actually coming by the reliable statistics required to form a clear picture of the extent of abuse.

But every three years now for the past decade, The Audit Commission, an independent body formed to provide economic advice to local authorities, has conducted a survey of computer fraud across the UK.

For the purposes of ascertaining the only reliable survey of its kind, the commission defines computer fraud as any fraudulent behaviour connected with computerisation by which someone intends to gain dishonest advantage. Within this wide net it attempts to catch incidents of fraud, theft, hacking and virus attacks.

By taking such a broad view, a wide sample of cases can be included because whether a computer is involved is less important than the knowledge that the computer's involvement may have introduced an additional risk of financial loss. The 1992 survey was only the fourth to be conducted in this country and the first to include virus attacks. The last one, in 1987, covered hacking for the first time.

## DEFINITION OF FRAUDULENT

Because both hacking and viruses may not be fraudulent or designed to gain dishonest advantage, the current survey has had to widen its definition. Fraud has been further defined as the unauthorised alteration of input, computer data and programs and the destruction, suppression or misappropriation of output from a computer process (whether paper or screen based). Theft incorporated the loss of data and software as well as the use of illicit copies of programs and unauthorised private work on company systems.

Hacking is defined as deliberately gaining unauthorised access to a computer system through the use of communication facilities and/or subverting the computer process by causing deliberate damage to the processing cycle or equipment. Viruses are simply defined as a program distributed with the intention of corrupting a computer process.

Over 1,500 private and public sector organisations respond to the call for reports of incidents of fraud and abuse, and this year a total direct loss of over £1 million was reported. But is the figure of any real consequence? After all, these days £1 million is not a lot of money and in all probability such a figure could easily be written off within the normal contingency loss

**Hacking OUT, Viruses IN, ran the headline in Express' recent investigation into computer fraud and abuse. But what other facets of fraud are on the increase? Stuart Clarke investigates...**

budgets of the 1,500 companies concerned. Looked at in this light, an average loss of £667 per company is far want of a better expression, peanuts.

However, there are a couple of major points to bear in mind here. Firstly, the Audit Commission's survey does not purport to be a definitive list of UK computer fraud and abuse incidents, rather it provides an indication of the nature of the risks which organisations face when depending on computers to support their business activities.

**The 1991 report showed that over a third of all frauds were committed by directors, managers and supervisors!**

Another reason the figures seem to be low in comparison to alarmist media claims of the billions lost to fraud is that the commission's survey doesn't include losses due to natural acts such as human error, accidental damage, fire and floods. When asked whether such natural hazards posed a greater risk than deliberate acts such as fraud, theft, hacking and viruses, over 80 per cent replied that accidental acts posed a greater threat.

Secondly, this figure of a £667 loss per company assumes an equal distribution of loss in fact after ignoring incidents where financial losses were not reported, the average loss suffered was around £17,000.

So besides being compounded by the fact that not all losses will have been reported, some will have remained undetected, some mistaken for industrial loss and some covered up for fear of embarrassment. All these factors tend to underestimate the scale of the problem. So perhaps the monetary value of computer crime is not the best paradigm of the problem across

such a small sample of UK companies.

If we look at the number of instances - 182 - then the figure becomes more significant. We are looking at a situation wherein one in eight companies are the victims of fraud, theft, hacking and virus attacks. Also of interest is the fact that only 23 per cent of the four types of deliberate acts of abuse focused on were brought to light through internal control procedures. The vast majority of cases were unearthed via tip-offs from outsiders and through the perpetrators confessing. In addition, viruses were found to be an increasingly prevalent form of abuse with 30 per cent of the total number of cases being attributed to viral code introduced into systems. Fifty-four virus attacks were reported, as opposed to 73 cases of fraud, 27 instances of theft and 26 of hacking.

## SUFFERING THE SCAM

As might be expected, most reported instances of computer crime were found to be targeted at local government and financial institutions. In fact, half of all incidents impact in these areas. Undoubtedly, it is these corporate victims which are most reluctant to reveal details of the fraud suffered.

Traditionally, most have had comprised the unauthorised alteration of data prior to input into a computer, along with the alteration of data once in the system. However, the most recent survey reveals that it is destruction or misappropriation of hard copy that now represents a significantly larger threat. Why should this be? Ironically, one can only surmise that such a change is because of greater system safeguards.

## FRAUD BEGINS AT HOME

Most frauds are still being perpetrated through the submission of falsified invoices and claims along with the alteration of computerised payment data. As such, this low-value fraud is not determined by the technology and can only be termed 'computer crime' in as far as a computer figures somewhere within the fraud itself.

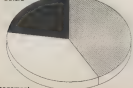
Fraud at the retailing stage comes into its own in cases where individuals create fictitious 'clients' records and have payments made through an automated payments system direct to a bank account. Most fraud occurs in these on-line areas of computer systems where phone connection enables remote access and remote payment. However, 70 per cent of fraud can be accounted for in this way, less than one in five cases can be attributed to stand-alone microcomputer systems.

Safeguarding on-line access is the key to security. Interestingly, a third of all such cases occur in systems developed by a company's own IT department, not in systems developed by external consultants, thus underlining the fact that most fraud and abuse is instigated by a company's own employees. And indeed, it wouldn't be those on the lower rungs of the ladder.

The 1991 report showed that over a third of all frauds were committed by directors, managers and supervisors from the point of view of employees, the most worrying fact about all this is that internal control mechanisms - systems checks, passwords, logging and monitoring - were only successful in discovering less than quarter of all misdeeds. Discovery by accident accounted for 60 per cent of all decisions, but lying in

## POST HELD BY PERPETRATORS

Others



Clerical Staff

**\* Thirty five per cent of frauds were commissioned by managers and supervisors. Of those who committed frauds, 90 per cent had held their posts for two years or more**

Management

# CONFESSIONS...

## ANALYSIS OF INCIDENTS BY VALUE AND TYPE

|         | 1990  |            | 1987  |            | 1984  |            |
|---------|-------|------------|-------|------------|-------|------------|
|         | CASES | LOSS       | CASES | LOSS       | CASES | LOSS       |
| FRAUDS  | 73    | £1,102,642 | 62    | £2,526,751 | 60    | £1,131,196 |
| THEFT   | 27    | £1,900     | 22    | £34,500    | 17    | £2,301     |
| HACKING | 88    | £31,500    | 35    | £100       |       |            |
| VIRUSES | 54    | £5,900     |       |            |       |            |
|         | 180   | £1,140,142 | 119   | £2,561,351 | 77    | £1,133,487 |

the face of the common myth that fraudsters get off scot free by helping security personnel close loopholes, the survey also showed that three-quarters of incidents are prosecuted under the Theft Act and dismissed.

### THE NEW THIEF

The 1991 survey was the first to include the category of 'use of illicit software', introduced in an attempt to determine the extent of illicit copying of software. The Federation Against Software Theft (FAST) estimates that the level of loss to the software industry is currently running at around £270 million and that over half the senior managers who use microcomputers at work copy software illegally.

## Over half of senior managers who use microcomputers at work copy illegal software

Of the 27 cases of theft, only seven involved the use of copied software – though given the scale of the problem as outlined by FAST plus the fact that senior managers are likely to be the persons who return the survey questionnaires, this low percentage is perhaps only to be expected.

Most theft continues to involve sensitive data which is sold to the commercial opposition. Given that copies of such data can be made easily, the extent of the

problem is difficult to ascertain. However, it seems that corporations are less likely to take tough measures against perpetrators when it comes to theft, private work on company systems and the use of illicit software. More than half the transgressions were met with cautions or no action at all.

### THE DEMISE OF HACKING?

It's too early to tell whether the introduction of the 1990 Computer Misuse Act is having any significant counter-effect on incidents of hacking, but the results of the audit commission's survey do show a downturn in hacking as the prime form of computer misuse and abuse. When respondents to the survey were asked how they ranked the relative importance of each type of deliberate computer misuse, hacking finished bottom of the list. But this downgrading of the threat of hacking could have led to a lower detection level, if managers do not feel threatened by the activity they are less likely to look out for it.

Of the low cases which were reported over half were perpetrated by persons unknown. Most hackers lasted for a period of less than five days and Phycol, Personal Accounts, and Stocktaking were the most popular targets. Ironically though, the costs of detection can outweigh the costs of the theft. One company lost £20,000 to a successful hack, but spent £38,000 detecting it.

### THE GROWTH OF THE VIRUS

Viral attacks accounted for 30 per cent of the reported cases in the 1991 survey, a figure which is perhaps not too surprising given that the Audit Commission estimates there are now over 250 different varieties of computer virus at large. However, in 1990 the well-

reported AIDS virus – which asked users to send monies to a Central American address in return for a password to prevent their host disks being wiped – possibly led to an over-inflated figure. The AIDS disk was sent out to over 30,000 organisations worldwide.

Otherwise the viruses most commonly accounted were the Vienna, Jerusalem, Stoned, Italian, A0061613 and Nerd1 strains. Only 16 of the indicators of viruses into computer systems were identified and surprisingly six of these were company directors. Why management should feature so regularly in computer misuse and abuse is anyone's guess.

Whilst it is difficult to quantify the loss to business of viral activity, one company revealed that it had spent £15,000 detecting and reconstituting a system after a virus, which caused no damage or direct loss, was found to have penetrated security. It is apparent that with so many strains of viruses but there, no one knows for sure, just which variant they have detected and what, if anything, are the probable results of infection.

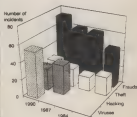
### PREVENTATIVE MEASURES

The survey sought to identify the preventative steps which could and should be taken by companies to help avoid computer fraud. Given that the greatest threats to networked systems are where passwords are not being effectively used as a means of controlling access, the commission suggested four types of security measures which should be employed:

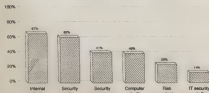
- 1) Continual risk analysis being conducted to identify areas most open to abuse.
- 2) A computer security policy which should be vigorously implemented.
- 3) All staff should receive computer awareness training which makes them aware of the risks and the precautions they must take.
- 4) An internal audit department should be set up and staff employed specifically to compile a computer security policy.

Whilst the recommendations of the 1987 report suggested that managers suffered from 'security blindness' in not appreciating the need for security measures, it is now apparent that many organisations are simply not aware of the risks that they run. ■

## ANALYSIS OF REPORTED INCIDENTS



## MOST COMMON PREVENTATIVE MEASURES



\* Few organisations had computer audit skills available

\* Frauds continue to rise

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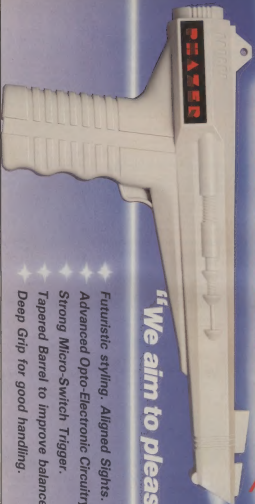
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